

THE
ARCHITECT
& BUILDING NEWS

IN THIS ISSUE

- SHOE SHOP IN PICCADILLY
- PETERBOROUGH TECHNICAL COLLEGE
- CURRENT MEASURED RATES

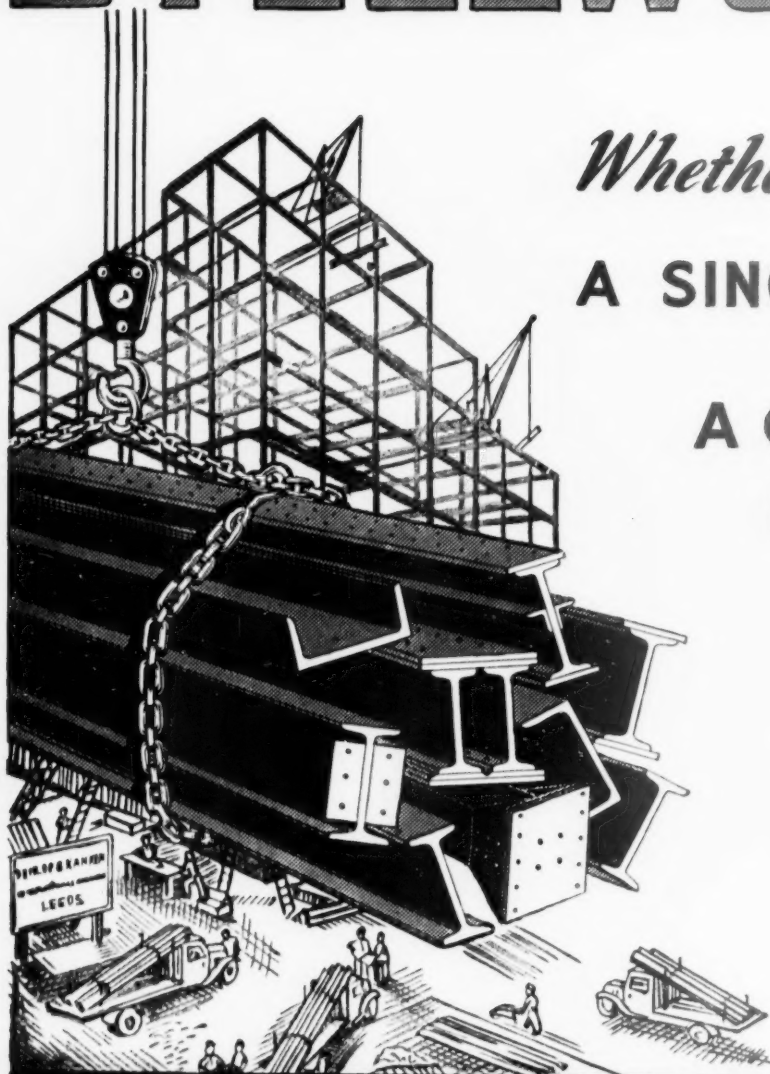
JULY 30, 1953

VOL. 204

NO. 5

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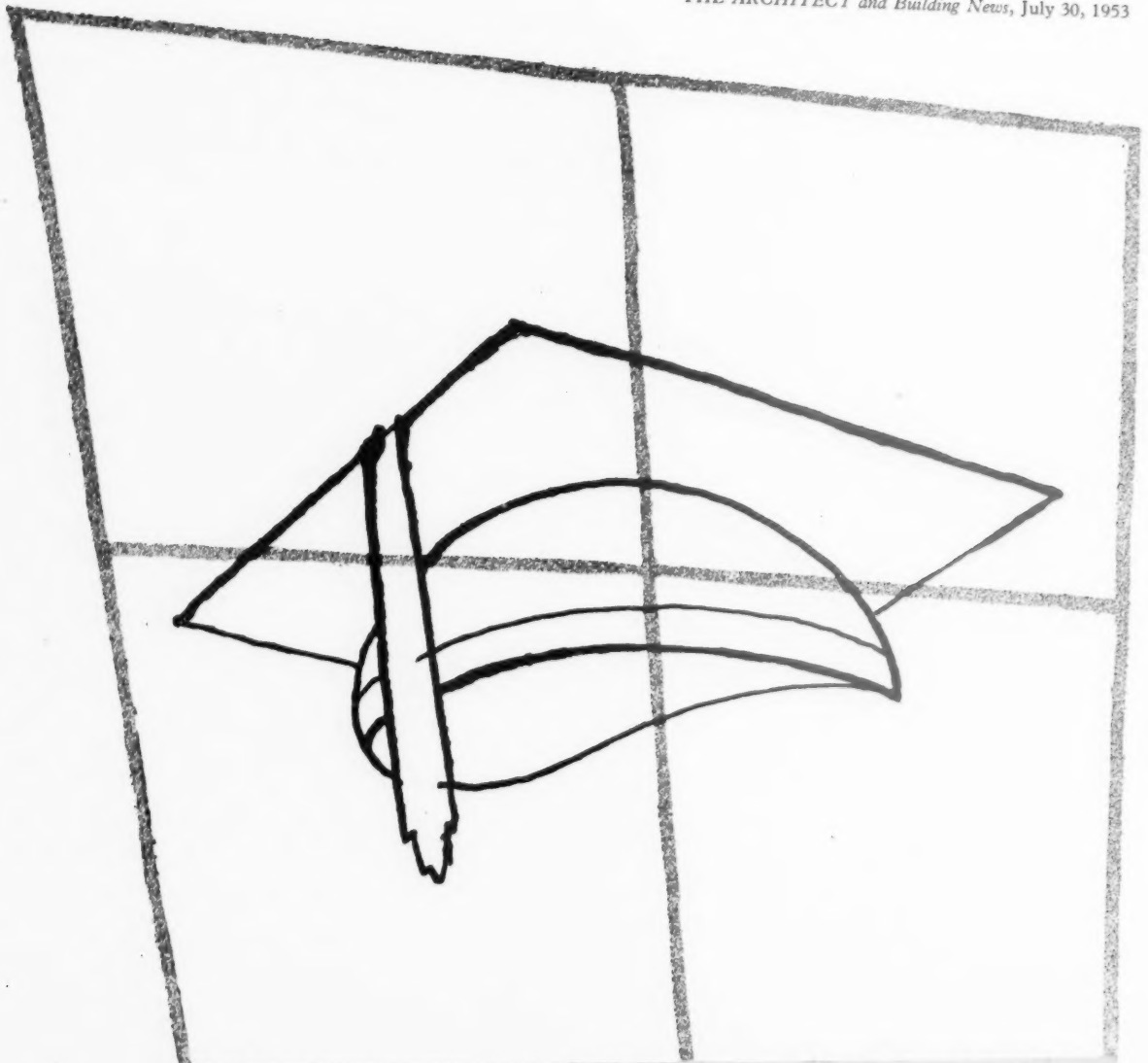
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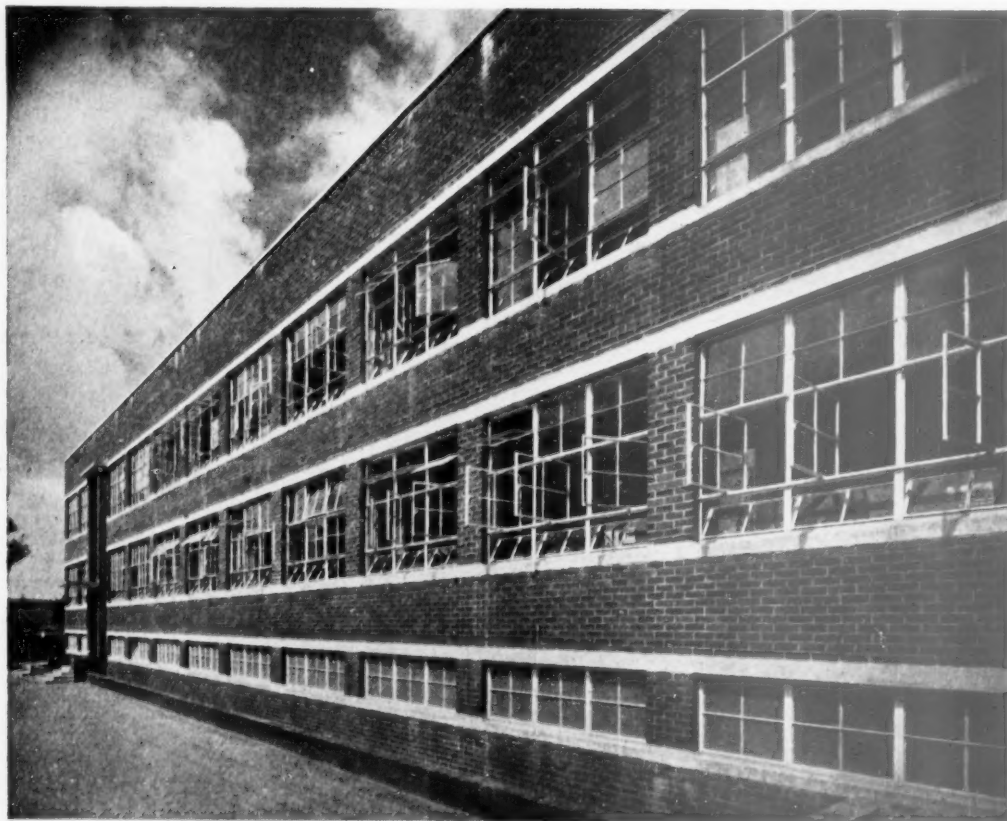


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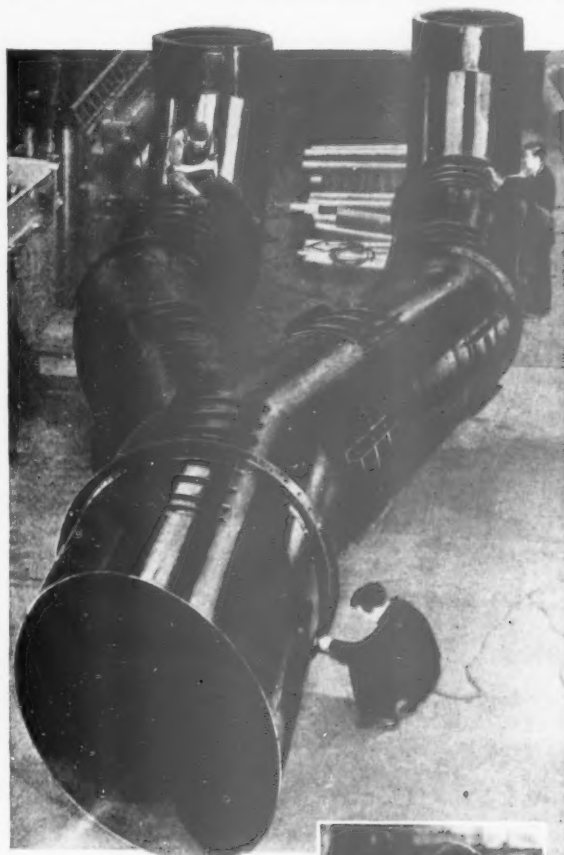
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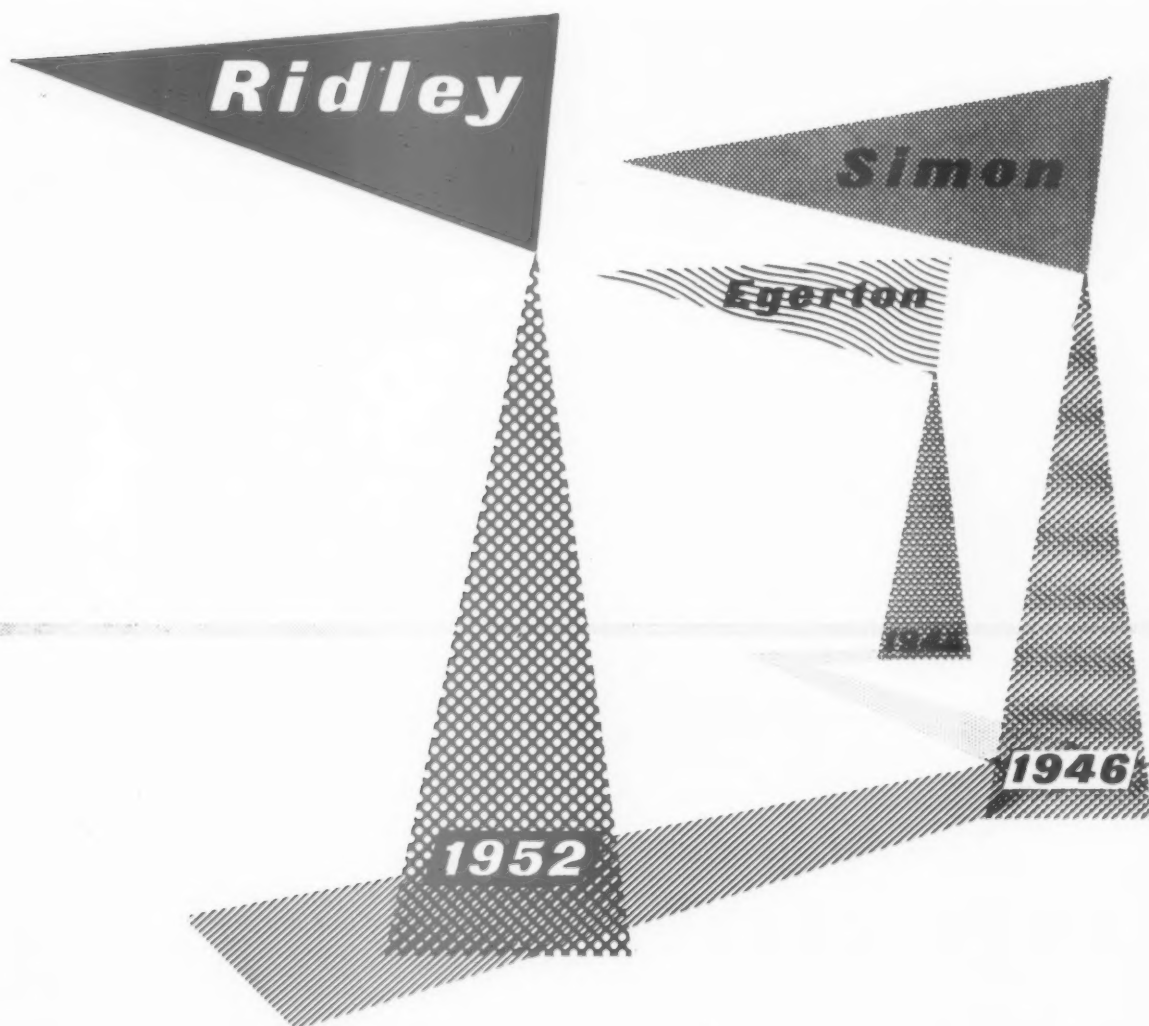
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The "Egerton" Report published in 1945 set up new standards for the heating and ventilation of dwellings. The "Simon" Report, which followed in 1946, attempted to relate these standards to a Domestic Fuel Policy. The "Ridley" Report, recently published, emphasises the fact that fuel shortage is likely to continue for many years and is largely concerned with how to make available fuel resources go as far as possible.

There appears to be a danger that the watering down of the recommended standards, which has occurred in practice because materials and appliances have not been available and capital expenditure has been restricted, may eventually lead to a general acceptance of lower standards. The Gas Industry has done, and is doing, what it can to make the full standards practicable by research aimed at developing gas and coke appliances of the highest possible efficiency and by a policy of full co-operation with all concerned with their design, manufacture and use. The wide knowledge of its technicians is freely available through the gas undertakings to assist those who wish not only to save coal but also to achieve improved standards of heating.

Where to go for information about Gas

If you are considering the use of Gas, however tentatively, your first move should be to get in touch with the Gas Undertaking serving the area in which the job is situated. Through it you have access to the combined technical resources of the entire Gas Industry. The following list gives the addresses and telephone numbers of the Area Boards. Where there is any uncertainty as to which Area Board is concerned, The Gas Council will be pleased to give you the correct address.

Scottish Gas Board: 26, Drumsheugh Gardens, Edinburgh, 3. *Edinburgh* 34331/5. *Northern Gas Board:* 30, Grainger Street, Newcastle-upon-Tyne, 1. *Newcastle-upon-Tyne* 26101. *North Western Gas Board:* Bridgewater House, 60, Whitworth Street, Manchester, 1. *Manchester Central* 8121. *North Eastern Gas Board:* Bridge Street, Leeds, 2. *Leeds* 32571/8. *East Midlands Gas Board:* Beverley House, University Road, Leicester, Leicester 23201/5. *West Midlands Gas Board:* 6, Augustus Road, Edgbaston, Birmingham, 15. *Edgbaston* 3616. *Wales Gas Board:* 1 and 2, Windsor Place, Cardiff, Cardiff 28621. *Eastern Gas Board:* 2, The Abbey Garden, London, S.W.1. *Trafalgar* 5373/7. *North Thames Gas Board:* 30, Kensington Church Street, London, W.8. *Western* 8141. *South Eastern Gas Board:* Katharine Street, Croydon, Surrey, Croydon 4466. *Southern Gas Board:* 164, Above Bar, Southampton. *Southampton* 76362. *South Western Gas Board:* 9a, Quiet Street, Bath, Bath 60411/5.

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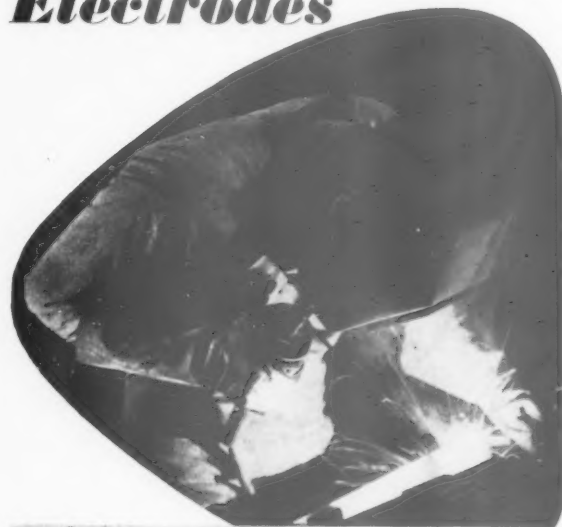
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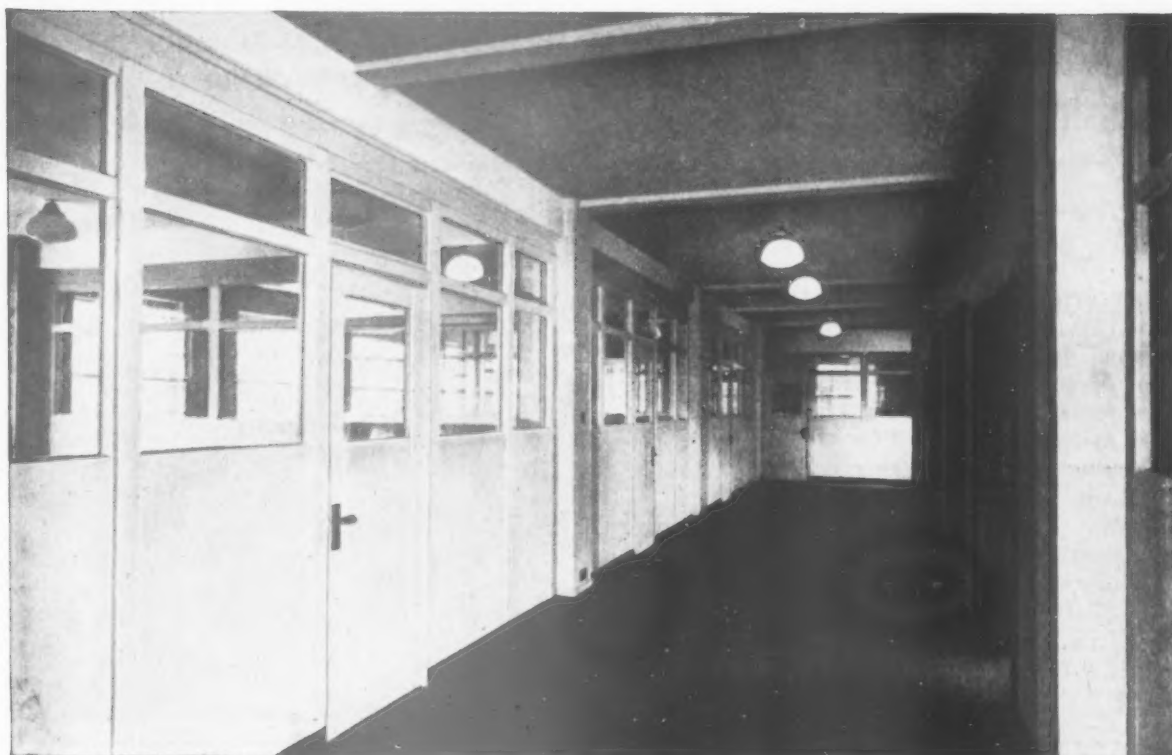
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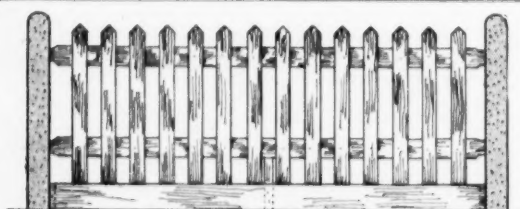
"STONITE" Scraped Finish in Russett 128 and Shell Pink 1036 were used as the external finish to this building

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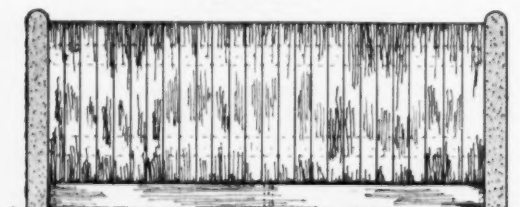
Architect : David Jenkins, F.R.I.B.A.

Plastering Contractors : Crotch & Son, Ltd.,
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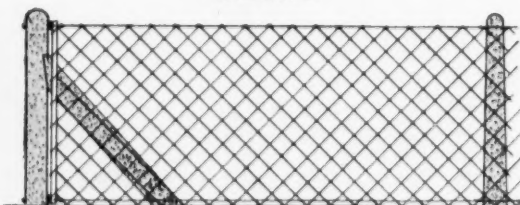
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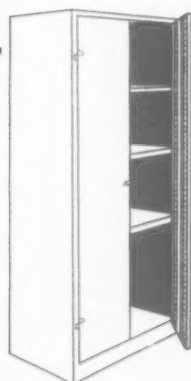
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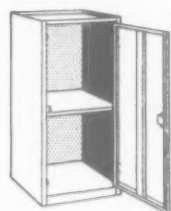
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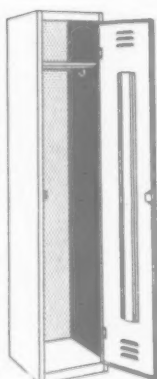
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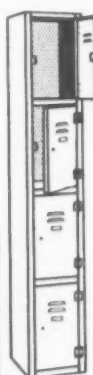


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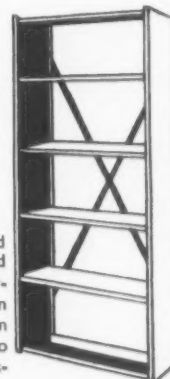


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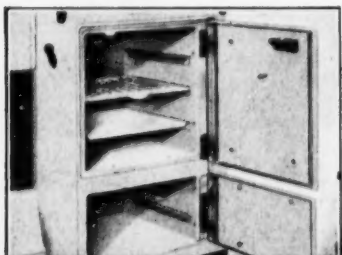
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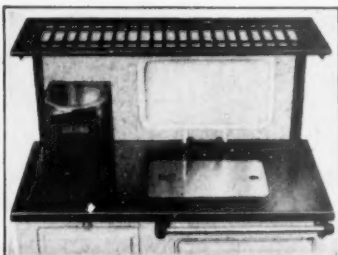


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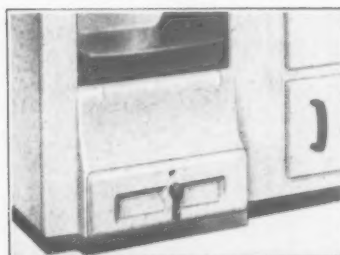
OPEN FIRE COOKER AND WATER HEATER



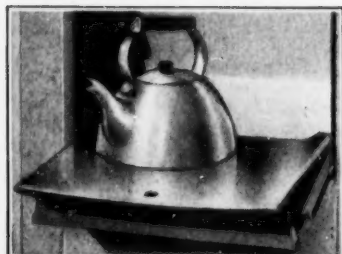
The capacious oven with adjustable shelves and hot cupboard.



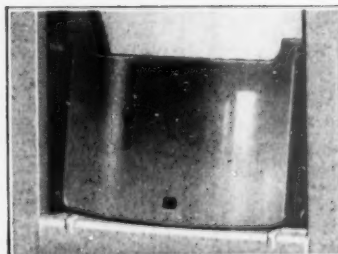
The hob, hot plate, conservor cover and front towel rail.



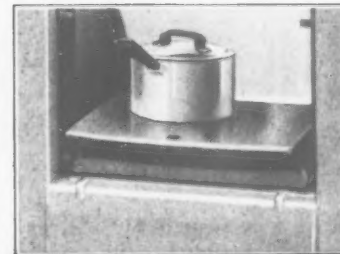
The Sofono Fire, showing the air control lever and removable front.



The Trivet in its normal position for keeping food etc. warm.



The Trivet used as a safety closure cover.



The Trivet as an extra boiling hot plate.

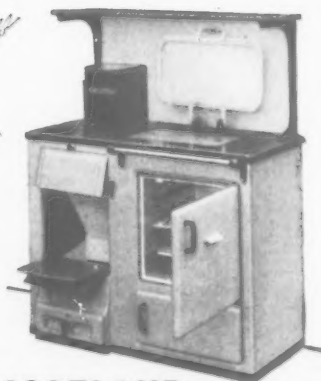
The makers of the famous Sofono Fire have again designed a sure selling winner. It will pay you to stock this appliance now against the enquiries that are sure to come.

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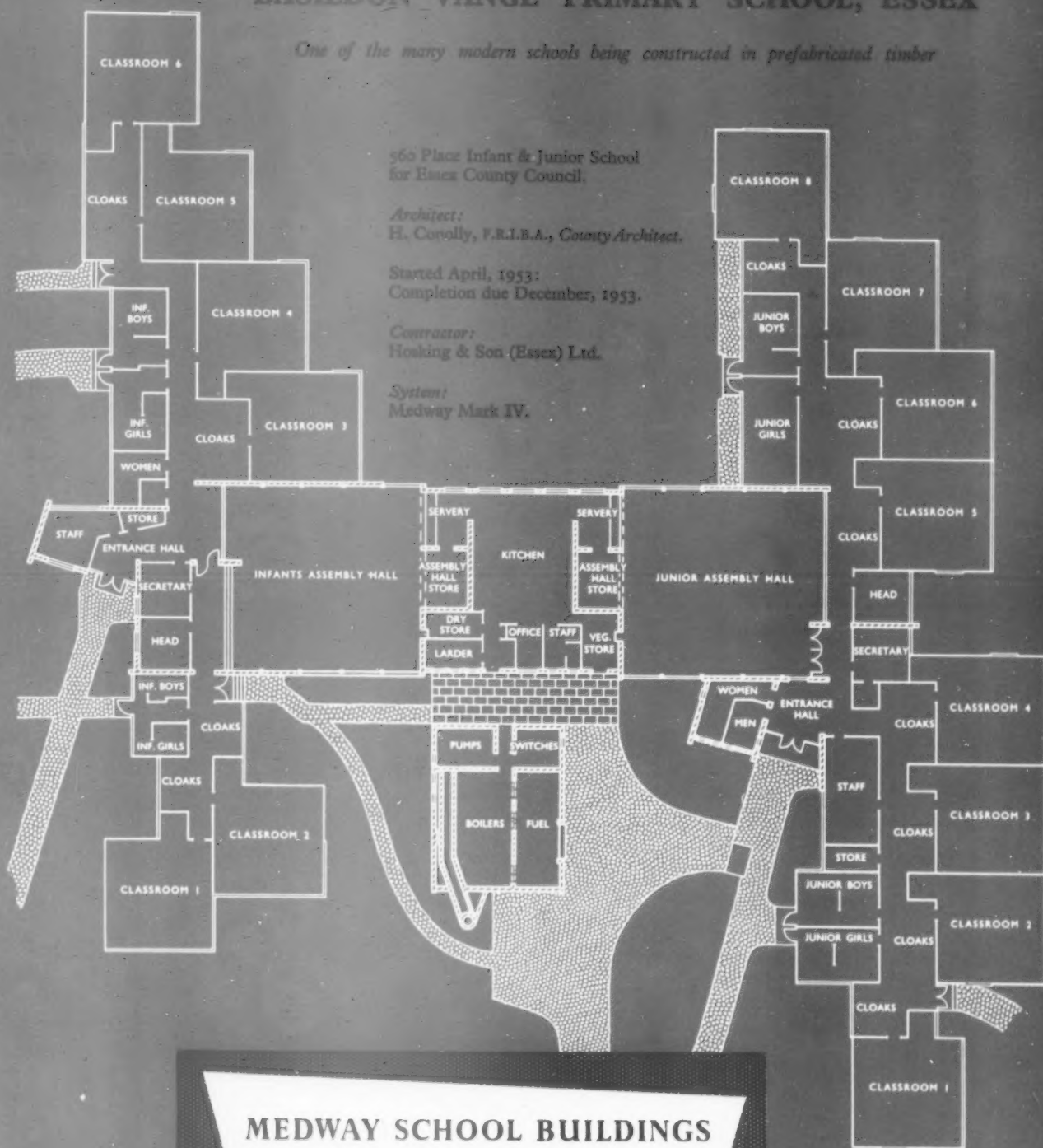
565 Place Infant & Junior School
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H. Conolly, F.R.I.B.A., County Architect.

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*Goldharbour Estate—Motttingham. Metropolitan Borough of Woolwich.
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The illustration shows the combined use of "EVERITE" Asbestos-Cement Soil Pipes and Rainwater Goods and emphasises the neat effect obtained by employing 10' 0" length pipes with a very limited number of joints.

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TRAFFORD PARK

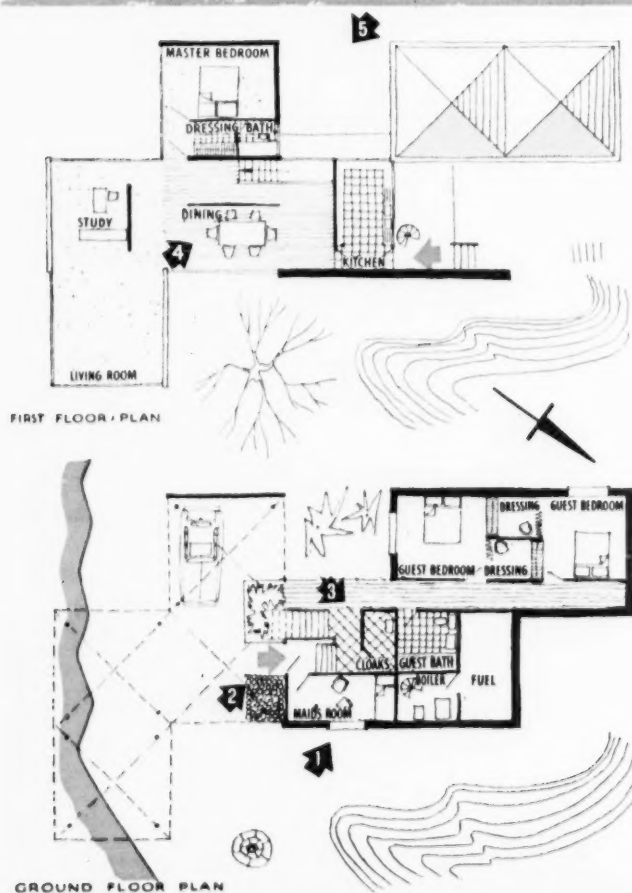
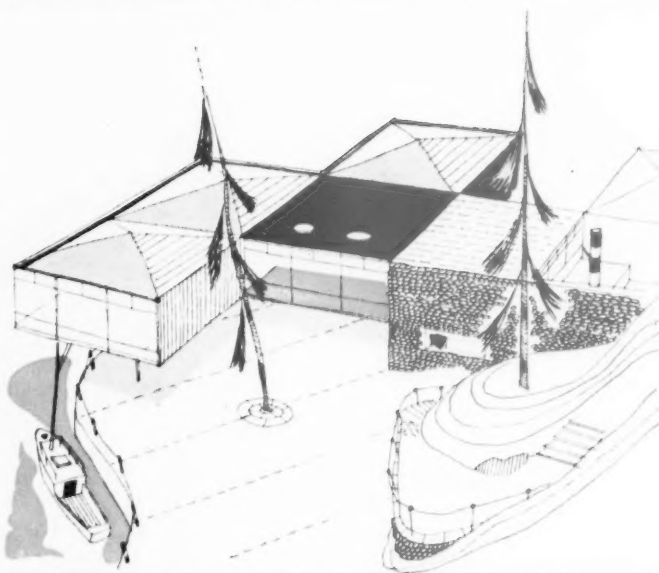
MANCHESTER 17

NEW DESIGNS FOR LIVING, No. 2

This house is designed for a steeply sloping site on the shores of a Scottish loch. The site problems have been solved by raising the main living area at the front of the house to first floor level on tubular cast-iron legs.

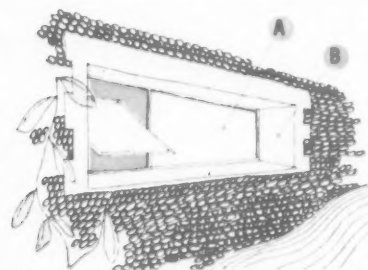
Walls are of tarred stone, with white reveals to windows, or of timber frame insulated with fibreglass and faced with white boarding. The roof panels are covered with lead sheeting.

The combination of traditional materials and practice with modern glass and steel constructions has created a house, modern in conception, which blends pleasantly with its setting.



The plan form is based on a 15 ft. square grid to allow structural members, roof panels, and so on, to be standardised.

Designed by: Leslie H. Goody, A.R.I.B.A., M.S.I.A.
and C. Wycliffe Noble, A.R.I.B.A., DIP. ARCH.



A 1" Polished Plate glass to hardwood framed window.

B Reveals painted white.

GLASS IN THE LARGE HOUSE

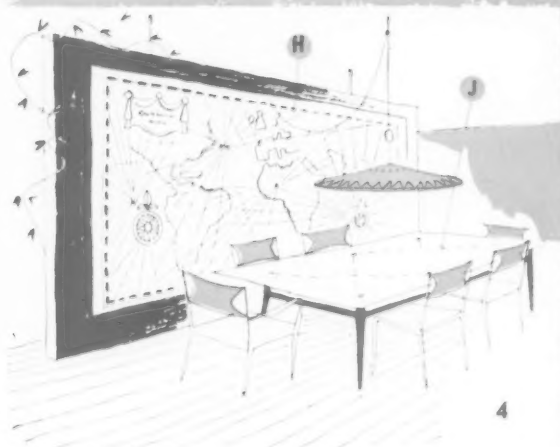
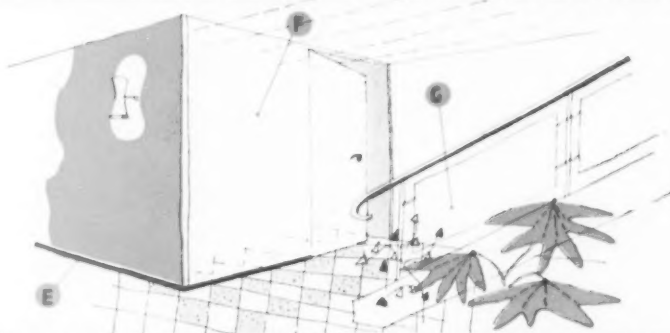


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- C $\frac{1}{4}$ " Polished Plate glazing to cantilevered conservatory.
- D White "VITROLITE" fanlight panel.

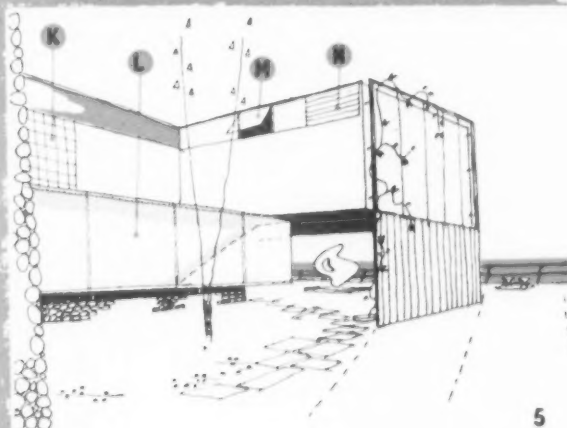
- E Black "VITROLITE" skirting.
- F Silvered $\frac{1}{4}$ " Polished Plate glass door and wall facing.
- G "ARMOURPLATE" Glass panels to staircase balustrade.

3



4

- H Photostat enlargement of ancient mariner's map behind $\frac{1}{4}$ " Polished Plate glass.
- J Toughened Rough Cast glass table top on ebony framed table.



5

- K "INSULIGHT" Hollow Glass Blocks to kitchen.
- L $\frac{1}{4}$ " Georgian Polished Wired glazing to gallery.
- M S.Q. 32 oz. Sheet glass to top hung metal window.
- N White acid obscured $\frac{1}{4}$ " Polished Plate glass louvre panel.

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EXPANSION OR CONTRACTION?

ALTHOUGH it is difficult to get comparative figures from enough sources to arrive at any sort of all-over picture of the matter, there does seem to be a general tendency on the part of the Government and its central departments to clamp down on a fuller expansion in building. The symptoms show most in the fields of housing and the schools programme, both assumed, up to now, to be priorities of the first rank.

The reasons given for the retraction are the limited allocations which can now be made of capital expenditure for the whole country. It would seem therefore that a new control of building is being imposed from the economic end and is being kept partly hidden by limited applications through curtailments of local authority programmes. Whether the limitations and controls will eventually extend to private enterprise building remains to be seen.

If capital expenditure is reduced and controlled it can be for two reasons only; to guide it into channels from which national recovery and future capital can be built up, for example, exports and the increase of wealth by extended productivity and by the exploitation of natural resources and, ultimately, by hard work. Or, alternatively, to avoid an even worse economic state and because the nation is already fully extended and no greater effort can be expected. It is difficult to believe that the latter is true.

There has been a general post-war increase in productivity in most industries, but this post-war tendency is now no longer on the up-grade, and, in any case, is not great enough to provide more houses, to rebuild schools, to expand the road and rail system, to provide more electricity, or to raise the standards of food, clothing and the social services. All these can only be extended by still greater effort on the part of all who produce. All the while luxury articles and

indulgence in the unnecessary continue or increase they must do so at the expense of those very things for which greater capital is required and at the expense of future expansion and prosperity.

To advocate a complete return to war-time austerity for the sake of quicker recovery would be unpopular for any political party that did so; but is there any other sane course of action? If it is a way that is pursued then the austerity must be laid upon all people and classes alike and not upon any section of the community unfairly.

In the building industry the recent claim for sixpence an hour increase in wages has been rejected. Apart altogether from any justification or otherwise for this particular claim, its total rejection in the face of a rising cost of living index may eventually prove it unwise, in spite of the employers' present approval of its rejection.

If incentive bonuses are becoming suspect by the operatives (and the Llandudno conference of the A.U.B.T.W. voted for their abolition) then compensatory movements must occur in wages. The average rises in wages in the building industry since 1950 have been about 8d per hour, a figure that is by no means the highest in industry generally.

The rises in costs of materials in the same period—1950 to 53—are about 20 to 25 per cent. The total overall increase in building costs is a more difficult figure to arrive at, though it should be known with some certainty in the Ministry most concerned. The increase seems serious enough, however, for the Government now to cut capital expenditure and for the operatives to demand (last week) a Government investigation into profit margins in the industry.

The high costs of building are indubitably concerned not only with cost increases in both wages and materials but with the most important factor of the slowness of execution of work as compared with pre-

war days. This is something which should be noted alike by the employers and the professions on the organization side, the operatives on the output side and the Government on the administrative and economic side.

If it is necessary to rally the nation to a new industrial revolution for the purposes of a complete economic reconstruction, is it the Government's role to organize it in a positive way or should their powers be extended only to the imposition of temporary controls, of negative, localized and often unrelated methods? Finally, can the building industry, the greatest capital spender in the country be called upon to put its house in order without reference to industrial reconstruction on a national basis? National planning may, in some people's estimation, be dead or dying but the responsibility for laying its ghost still remains at somebody's door. In the meantime the hauntings continue, and it may be that it is not a ghost after all.

EVENTS AND COMMENTS

RIVER PAGEANT

From my position in one of the embrasures of Blackfriars Bridge I had an excellent view of the Thames Pageant last week. The weather threatened to repeat its disloyal behaviour, but enough blue sky appeared to patch a Dutchman's trousers and the light improved until it became as brilliant as a Canaletto.

The procession of boats was lacking in rococo and I wished that the R.I.B.A. Council had been invited to take part rowed by A.A. students in William Kent's barge. This would have introduced the Coronation coach note which was sadly lacking. The genuine river boats, both working and Services craft, looked fine, relying on flags, bunting and bright work for effect, and the fast Naval patrol boats, impatient at the crawl of some of the tugs dragging special effects against the ebb, put on a burst of speed which set up a bit of wash and introduced a glimmer of excitement into 'Ole Man River's very, very slow rolling along.

The tableaux were so literally a Lord Mayor's Show afloat that they lacked the bold detail necessary to reach the eyes of the watchers on the banks. The industrial floats raised many a laugh but I doubt if they would have appealed to Pepys, except for the West Indian girls in the Sugar tableau. It was potentially a grand show marred by the straggle of the slower boats which broke the continuity and made one wonder if some of them had sunk.

CARAVANSERAI IN THE PEAK DISTRICT

At its annual meeting at Bakewell last week, the Peak Park Planning Board accepted a report of its Development Control Committee granting permission for a piece of land near Bamford to be used for ten years as a caravan site. Objections to this proposal had been raised by local ratepayers, but the Board argued that the most effective way



Royal River Pageant: tableau sponsored by the London General Shipowners, showing the Lord Mayor of London welcoming the Black Prince and King John of France at the head of London Bridge. Note the heads on pikes.

to exercise control and minimize injury to amenity was to select suitable sites and pen the caravans in them. In this particular case, the number of caravans was laid down, and directions were given for screening the site with trees and for the construction of an access road. A strip of land was allocated for parking the caravans during the winter months.

This procedure seems the only suitable way to deal with the situation and I hope other planning authorities will follow suit. The next step, I hope, will be to find quieter colours for the caravans themselves. Passing Marazion, in Cornwall recently, I noticed how the cream caravans grouped close to that grey village caught the eye. The camouflage principle is the solution. Ideally, it should be as difficult to find a caravan park as to find a clutch of Ring Plover's eggs on the beach.

CREMATORIA

In North Wales, I read recently "cremation was increasing in popularity—one person in every five was being cremated." I was not surprised therefore, reading on, to learn that there was a proposal to build a crematorium in North Wales, since the nearest was at Landican, Cheshire. Assuming that this alarming proportion applies to dead Welshmen only, it probably holds good for the rest of the country, and, other things being equal, the land shortage will weigh the scales in favour of crematoria as against cemeteries. Architects and landscape architects may therefore have opportunities for designing good buildings with pleasant grounds. The Finns have shown that a crematorium can

be an outstanding architectural achievement, and offers the chance for making use of natural stone, and of helping to reduce unemployment among masons.

MORE PARK FOR BATTERSEA?

No doubt the L.C.C. meeting on Tuesday voted agreement with the Minister of Works that the Pleasure Gardens, Battersea, should be discontinued under their present management this autumn. In effect this means that Battersea's present 150 acres of Park is on the way to regaining its lost 37 acres; and the L.C.C., under a broad arrangement already reached between its Parks Committee, M.o.W. and Festival Gardens, Ltd., will take over the gardens as they stand plus "a substantial lump sum in discharge of the liability for reinstatement," the amount of which has not yet been decided.

What is to be scrapped or retained and what is to be adapted or introduced is next on the agenda. The Council, as its Leader, Mr. Hayward, said at a Press conference last week, have an open mind on the subject. He also said it would be wasteful and not far short of vandalism to uproot everything and reinstate the whole of the Festival area. To this we say hear! hear! but add that the same words would apply if everything were to be left as it is.

In this fluid situation certain factors are, perhaps, worth underlining. First, when the Festival area becomes "Park" once more, the Public will be able to enter free; only small sections at a time can be set aside for a limited period and purpose and admission fee charged under the

Acts which govern management of London's parks. The sculpture exhibition which has been held some years at Battersea is a good case in point. Secondly, there seems little or no excuse for occupying parkland with a permanent fun fair when bombed sites are vacant and often derelict. If the Fun Fair were to be scrapped, a visiting circus or fair occupying a prepared site for a short season is not new and has as its tradition the fairs and circuses which visit some village greens and resorts of all kinds annually. Thirdly, as Mr. Hayward pointed out, the needs of Londoners who spend their holidays at home have to be thought of, now so many more people are getting paid holidays. Here, in addition to more space for games, there seems a plea for imaginative development of the river front. Beside the riverside walk, why not have a sunbathing lido and swimming pool?

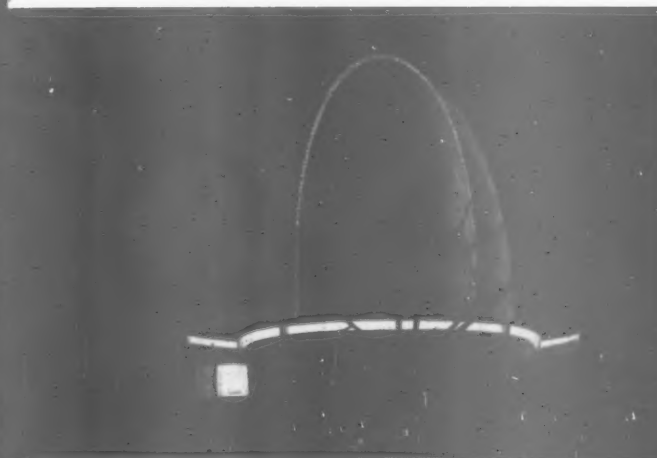
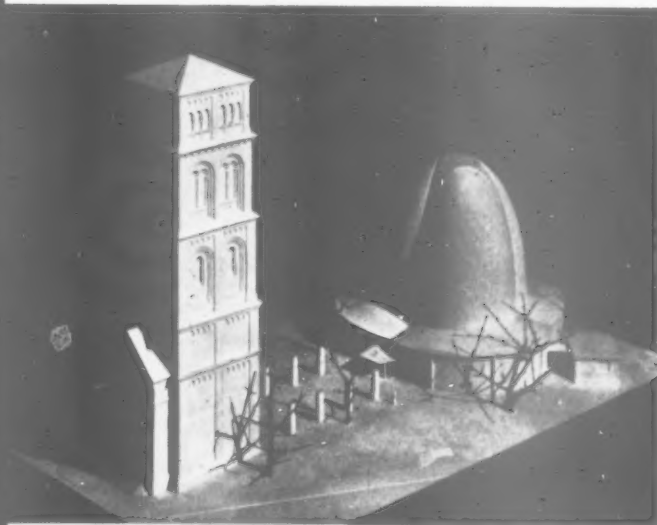
Last year the L.C.C. spent £14m. net on the maintenance of its parks, so pounds, shillings and pence are bound to enter the matter. But user for profit will be no more welcome if it is unsuitable for the environment, than gimcrack development, the breeder of cracked paving, enumerable litter bins, rubbish, dirt and heavy overheads, will be acceptable on the score of economy. Better to have simple and informal planting and open spaces. For the fact must always be remembered that London's parks are first and foremost—lungs for the built-up areas; oases in the desert of brick, concrete and tarmacadam, where some measure of fresh air and physical rehabilitation may be enjoyed by Londoners less fortunate in this respect than their seaside or country cousins.

GATWICK AIRPORT

The publication in *The Times* of the modified proposals for the development of Gatwick Airport calls to mind the great interest which its circular terminal building, designed by architects Hoar, Marlow and Lovell, aroused in the middle thirties. The building—which is tucked away in a corner behind the proposed new maintenance area—was criticized in those days as being too inflexible and incapable of future expansion.

It must be disturbing to architects and planners that parts of villages and roads have to be removed or diverted (to an extent never dreamt of before the War) and good agricultural land taken over to provide another colossus for London's air traffic to land on. Consolation must be found in the fact that aviation has become one of Britain's foremost industries and London is the centre of a Commonwealth.

Three views of a model for a church at Dusseldorf. Architect: Paul Schneider Esleben.



NEWS OF THE WEEK

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Licentiate Members of Council: Bernard H. Cox; S. Vincent Goodman (Bedford); G. H. Morris (Coventry).

REPRESENTATIVES OF ALLIED SOCIETIES IN THE UNITED KINGDOM OR THE REPUBLIC OF IRELAND.

(1) *Six Representatives from the Northern Province of England:* C. A. Harding (F) (Northern Architectural Association); G. B. Howcroft, M.C., M.A. (F) (Manchester Society of Architects); F. J. M. Ormrod (F) (Liverpool Architectural Society); Allanson Hick (F) (York and East Yorkshire Architectural Society); Noel Pyman (F) (West Yorkshire Society of Architects); S. E. Minns (L) (Sheffield, South Yorkshire and District Society of Architects and Surveyors).

(2) *Five Representatives from the Midland Provinces of England:* C. E. M. Fillmore (F) (Birmingham & Five Counties Architectural Association); C. C. Ogden (F) (Leicestershire and Rutland Society of Architects);

K. A. Milner (L) (Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects); F. H. Crossley (F) (Nottingham, Derby and Lincoln Society of Architects); R. O. Bond (F) (East Anglian Society of Architects).

(3) *Six Representatives from the Southern Province of England:* Edward Narracott (F) (Devon and Cornwall Society of Architects); R. J. Potter (F) (Wessex Federal Society of Architects); David Booth (F) (Berks, Bucks and Oxon Architectural Association); Gordon Sutcliffe (A) (Hampshire and Isle of Wight Architectural Association); R. J. Page (F) (Essex, Cambridge and Hertfordshire Society of Architects); R. W. Paine, A.R.C.A. (A) (South Eastern Society of Architects).

(4) *Four Representatives of Allied Societies in Scotland: nominated by the Council of the Royal Incorporation of Architects in Scotland:* Thomas S. Cordiner (F) (Glasgow); L. Grahame MacDougall, R.S.A., F.S.A. (Scot.) (F) (Edinburgh); William McCrea (F) (Glasgow); T. W. Marwick, F.S.A. (Scot.) (F) (Edinburgh).

(5) *One Representative of Allied Societies in Wales:* L. R. Gower (F) (South Wales Institute of Architects).

(6) *Two Representatives of Allied Societies in Ireland:* Francis McArdle, M.Sc., B.E., M.I.C.E.I. (F) (Royal Institute of the Architects of Ireland); J. M. Aitken, A.M.T.P.I. (A) (Royal Society of Ulster Architects).

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CHAIRMAN OF THE R.I.B.A. ALLIED SOCIETIES' CONFERENCE.

P. G. Fairhurst, M.A. (Manchester).

L.M.B.A. President on Danger of Materials Shortages

Speaking at the L.M.B.A. half-yearly meeting, the President, Mr. Gerald Hill, said that among the outstanding problems facing the building industry to-day was, first and foremost, building costs. His predecessor had had a good deal to say about that last year, and they were still no nearer a solution of the problem. The small building owner was still doing his own repairs: the big building owner was still standing on the touch-line waiting for the prices to come down.

I am hopeful, said Mr. Hill, that we may have seen an end to the rise in the cost of materials, but I see no immediate likelihood of any substantial drop in the cost of the finished job. Some industries have slashed prices to meet the market: others have had drastic reductions forced upon them by competitors from overseas. We, in a sense, are a protected industry. We do not suffer, or enjoy, foreign competition. But I hope we are all alive to the importance of increasing our efficiency in every possible way, not least by making use of the latest devices which science is making available to us and by eliminating waste.

Many of us would like to extend our activities and conquer fresh fields, but a real danger threatens our immediate expansion. We have been warned on the authority of the Government itself that we are now building up to the limit of the materials available to us. This is a very serious situation, and one which threatens to have far-reaching consequences. As employers we have consistently said that the operatives will not work really well if materials are short for fear of working themselves out of a job. What is to be the position of the industry as a whole when it is told that materials, without which it cannot work, are limited? What becomes of our hope that we may soon be asked to rebuild the City of London, which has so long been a scene of desolation? What hopes are there of a start even of slum clearance, for which the country is crying out? I hope the Government and the industries which supply us are alive to the gravity of the situation. Where are those bricks and bags of cement in

abundance for which we have waited so long? Are we to wait in vain?

A word on apprenticeship. We need more apprentices and we need them urgently. I appeal once again to employers who are not taking apprentices to give a chance to some of the boys who are clamouring to come into our industry. The apprentice of to-day is the craftsman of to-morrow.

After discussion the half-yearly report was adopted.

Cricket

The L.M.B.A. ended its official cricket season last week with a match against the R.I.C.S. on the ground of the Pearl Assurance Company at New Malden—and lost for the first time for 29 years!

The Presidents of both bodies, Mr. G. A. Coombe of the R.I.C.S., and Mr. Gerald Hill of the L.M.B.A., attended the match, which, it is hoped, will now become an annual event.

Golf

The L.M.B.A.G.S. played the Ministry of Works G.S. at Porters Park on July 15, and this annual match resulted in a very close finish. Foursomes played in the morning ended in a draw at 3 all. In the afternoon the same couples fought it out again in four-ball matches, in which the Builders scored a slender lead of 3½ to 2½ to give them victory on the day. Matches were played on handicap and detailed results were (L.M.B.A. names first, handicaps in brackets):—Foursomes: P. H. Bates (8) and H. Cowan (8) beat J. L. B. Garcia (6) and O. H. C. Cornish (14), 3 and 1; D. F. Cox (7) and M. J. Grant (11) halved with A. L. Barclay (17) and W. H. Spencer (20); K. Wager (12) and L. F. Chamberlain (12) halved with R. T. Gillet (9) and F. L. Mason (16); A. J. Bates (14) and C. Fairweather (15) lost to I. Angus (14) and H. T. Denton (17), 1 up; H. Beaumont (15) and G. A. Harris (18) lost to D. Grant (20) and F. N. Shimmin (16), 3 and 1; J. A. Birch (22) and H. Vincent (24) beat C. Bowman (20) and S. P. Foster (21), 1 up. Fourballs: Bates and Cowan halved with Garcia and Cornish; Cox and Grant beat Barclay and Spencer 1 up; Wager and Chamberlain beat Gillet and Mason 1 up; Bates and Fairweather lost to Angus and Denton 8 and 7; Beaumont and Harris beat Grant and Shimmin 1 up; Birch and Vincent lost to Bowman and Foster 2 and 1.

COMING EVENTS

Royal Institute of British Architects

August 4 to August 13. R.I.B.A. Travelling Exhibition, "Home and Surroundings," Town Hall, Croydon, Surrey.

CORRECTION

The suppliers of linoleum for the Indian Students' Union and Hostel (July 16) were Messrs. Catesby and not Heals Contracts, Ltd., as printed.

IN PARLIAMENT

Bricks Without Controls

The reimposition of control on bricks was suggested in a question to the Minister of Works by Mr. Sparks. He asked if, during the present shortage of bricks for general building, the Minister would regulate supplies and take action to increase supplies. Sir David Eccles stated that the policy of the Government was to encourage those who were prepared to expand production, and the success of that policy was reflected in the increase of nearly 20 per cent in brick production since 1951. He did not favour measures to regulate distribution. (July 21.)

Pressure on Softwood

A group of M.P.s is pressing for the removal of licensing on softwood, which it has been estimated would result in an increased consumption of 230,000 standards a year. Among them, Brigadier Medicott asked for consideration of the views of the Timber Industries Committee, and the trade generally, that any seeming disadvantage from increased home consumption would be outweighed by the advantages and the restoration to users of a free choice of materials. Sir Arthur Salter stated that the opinions of the trade were given due consideration. But the cost of importing 230,000 standards at present prices would be no less than £15 millions. Even with allowance for off-setting economies the prospective increase in consumption—therefore in imports—if control were removed would be formidable. The Government, however, had no wish to arrive at hasty conclusions on this account without weighing completely the other factors involved, and he would make an announcement as soon as a decision was reached.

Mr. Erroll proposed a progressive relaxation, to see whether demand had reached the figures estimated. Mr. Hurd suggested the freeing of one use after another, so that real economy could be obtained in house-building and so on. Sir Arthur Salter said the Department was considering carefully whether further relaxations were possible. There was considerable difficulty in picking out one or two additional uses for relaxation because they overlapped so much. Brigadier Medicott said that the existing restrictions enabled a supplying country to regulate its production to a known volume of imports, and thus maintain artificially high prices. There was every reason to believe that if the restrictions were removed the timber trade could obtain even larger quantities for even less foreign exchange. Sir Arthur Salter said there was doubtless some truth in that argument, but it must be remembered that the removal of these restrictions would mean a considerable increase in demand and that that would operate in the other direction. (July 20.)

West End Hotel

The effect on West End traffic of the new hotel to be built at the corner of Bond Street and Conduit Street was the subject of a question by Lord Blackford, who wanted to know whether the building plans allowed for the frontages to both streets to be set back at least 10ft and whether the entrances would be arcaded to reduce interference with traffic. Lord Mancroft replied that the L.C.C., who were the local planning authority, informed him that permission had been given last April for the erection of an hotel on this site. He understood it was to have about 240 rooms—that was about the size of Claridge's and the Dorchester. The main building, according to the plans approved by the L.C.C., would conform to the existing building lines in Bond Street and Conduit Street, but an arcaded footpath affording a clear width of 10ft would be provided within the building along the whole length of the Bond Street frontage. This would enable the road in Bond Street to be widened, and it was a condition of the planning consent that the developer should consult the L.C.C.'s chief engineer about the line of the widening. The main entrance would be from Conduit Street, and the plans made provision for cars to drive in and out within the curtilage of the building.

Lord Blackford was gratified to learn of the widening of Bond Street and the arcading of the entrance, but he wanted the Government to make representations that the Conduit Street frontage also should be arcaded and the road widened, adding the opinion that this site was about the least suitable in the whole Metropolitan area for an hotel. Lord Barnby went further, asking if it was too late for a complete abandonment of the whole idea of building an hotel on that site. Lord Mancroft said that the Minister of Transport and the Commissioner of Police were considering the traffic aspect carefully. On the wider question of planning he pointed out that authority had been delegated to the L.C.C., and it was a little difficult having done that to be constantly joggling the elbow of the authority to whom power had been given. (July 21.)

Committee on Air Pollution

Sir Hugh Beaver, M.Inst.C.E., M.I.Chem.E., is chairman of a committee set up by the Minister of Housing and Local Government "To examine the nature, causes and effects of air pollution, and the efficiency of present preventive measures; to consider what further preventive measures are practicable; and to make recommendations." The committee will be assisted in its work by assessors from M.o.H. & L.G., M.o.F. & P., M.o.H., D.S.I.R., and Department of Health for Scotland, and Welsh Board of Health. The committee is to start work immediately.

C O R R E S P O N D E N C E

LAW REPORT

Architects and Directorships

To the Editor of A. & B. N.

Sir,—It is indeed a healthy sign to perceive forthright opinions on the subject of architects and directorships in your Correspondence Columns. I most emphatically support Mr. C. A. V. Smith's "bold Elizabethan approach," though I may differ with certain of his conclusions.

If an architect were not debarred by the Code of Professional Conduct from taking a directorship in a firm of building contractors, I doubt if the possibility of prospective clients avoiding the architect in his professional capacity due to his connection with a firm of this type would discourage the intending architect director. This argument, furthermore is propounded on the assumption that prospective clients would know of the architect's connection, an assumption by no means certain judging by several of the methods which introduce prospective clients to unsatisfactory architects.

Another tendency might be that the prospective client, if he knew of the architect's directorship, might go to the building contractors direct. This frequently happens as it is, and the line of reasoning which prompts such by-passing of the profession might be reinforced by the thought that the particular project might be guaranteed a certain amount of professional experience and attention due to the architect being a director of the board of the building company.

This is a thought that greatly alarms me and must be prevented, otherwise the profession might be misunderstood and overlooked further. Of course, as I have maintained in this column before, the weapon to combat this danger is the advertising of the profession *en masse*, a point on which the R.I.B.A. are dwelling at present.

Clause 4(a) of the Code of Professional Conduct states that an architect if employed as a consultant should not either directly or indirectly solicit orders for the firm. If an architect in such a capacity designs, say, a special building block surpassing similar ones greatly in building properties and advantages, it would be natural for him to recommend such an advantageous product of his thought or his suitable project. This obviously would be indirectly bringing a considerable amount of business to the building contractors. It would appear "indirectly soliciting orders" might apply to his action. On this point the Code is obscure. If the architect were to play safe, as is customary I gather when one comes across undefined instances of conduct, he would desist from specifying his block. This would be very unfair as he would probably find his professional colleagues benefiting by the use of his building block, but being debarred himself.

While I do feel that the Code of Pro-

fessional Conduct is on the whole a fairly reasonable collection of guiding principles for pre-war years, it most certainly is in need of amplification and remodelling to directly relate to present-day conditions and problems. Although opinions will always vary on the clauses of such Codes, at least the principles of more precise definition, increased guidance and revision to meet different days must be fairly generally acceptable.

I am, etc.,
W. HOME.

Architects before XV Century

To the Editor of A. & B. N.

Sir,—I feel I must answer Colonel Witts' letter of July 9, although he does not appear to have considered the evidence which I submitted before, and continues to assert that architects *qua* architects were unknown before the fifteenth century.

Bramante may be "the father of the profession," but even fathers have parents, and there is plenty of evidence to suggest that there were many architects before him. Nor were Bramante's forebears in the profession simply "overseers, builders and craftsmen." Without pretending to be one of "those who really know," I am prepared to accept the evidence of several authorities, even in the face of the "two well-known professors of architecture" whose names, unfortunately, have not been revealed. And, happily, I am able to cite at least one professor (Nikolaus Pevsner) who, in Chapter III of his *Outline of European Architecture*, points out how during the twelfth and thirteenth centuries the personality of the architect came to be appreciated as distinct from the builders or craftsmen.

The most conclusive evidence, apart from Saltzman, is, of course, to be found in Swartwout's *The Monastic Craftsman* (Cambridge, 1932), which, under the direction of Professor Coulton, should have settled for all time the old fallacy that our mediaeval cathedrals were designed and erected by humble, pious monks or craftsmen. It is true that the designers were not always called architects; sometimes they were called *magisters*, and sometimes, like Elyas at the Tower of London, *ingeniators*. But whatever they were called, they functioned much as do the architects to-day, even, I believe, to the extent of conforming to licensing and trade union regulations. The reason for the fallacy is, I think, the tendency for mediaeval clerics to ascribe the building of a cathedral or monastery to the abbot who commissioned the work, just as the news-writer might ascribe the building of a mansion to Lord So-and-So or to Colonel Witts, rather than to the architect.

I am, etc.,
CECIL STEWART.

Judgement, with costs, was entered for Mr. Cyril Laurence Morris, F.R.I.B.A., of West Way, Pinner, Middlesex, in an action in the Queen's Bench Division, in which he sued Mr. Kenneth Croom Robertson, of The Whitehouse, Beechwood Avenue, Little Chalfont, Bucks., for the payment of professional fees. He was awarded £194 17s 5d—£26 14s 1d less than the amount claimed.

Mr. Morris's case was that he was engaged by Mr. Robertson early in 1951 to design a house and supervise its erection by the Loudham Wood Estates, Ltd., at Little Chalfont, near Amersham, Bucks.

The first design prepared was not to Mr. Robertson's liking, but a second one, after modifications, was approved by him and by the town planning and licensing authorities. But, when everything was in readiness to proceed, the plans were rejected by the owner of the land at Little Chalfont, a Mr. Gates, who was also the governing director of Loudham Wood Estates, Ltd. As a result the project fell through.

The defence was that the employment of Mr. Morris was subject to various conditions, which had not been fulfilled.

Mr. Robertson contended that his instructions to Mr. Morris were that the cost of the house should not exceed £1,800, and that it should be of a neo-Georgian design. The first design did not conform to the latter specification and was unsuitable. He pleaded, therefore, that he was not liable for the fees in respect of this work.

The second drawing was outside the financial limits and therefore not in accordance with his instructions.

It was also an implied or express term of the agreement that the design should be to the satisfaction of the owner of the land, and that there would be no liability for payment of fees until the house had been completed.

Replying to this defence, Mr. Morris said the defendant had waived the condition regarding the financial limits when he had explained that the type of house finally decided upon could not be built within the £1,800 limit.

He also pleaded that in all matters concerning the house he had acted for Mr. Robertson with his (Mr. Robertson's) knowledge and was therefore entitled to his fees.

Mr. Justice Streetfield found that there was an agreement between the parties that Mr. Morris should be paid according to the Institute's scale of fees.

He held that all fees claimed were payable, except a sum of £26 14s 1d in respect of the first design, which he found was not prepared in accordance with Mr. Robertson's instructions.

There was no condition in the agreement that the plans had to be approved by Mr. Gates, and the defendant had instructed Mr. Morris to proceed with plans for a house which he knew would cost more than £1,800.

Shoe

Shop

in

Piccadilly

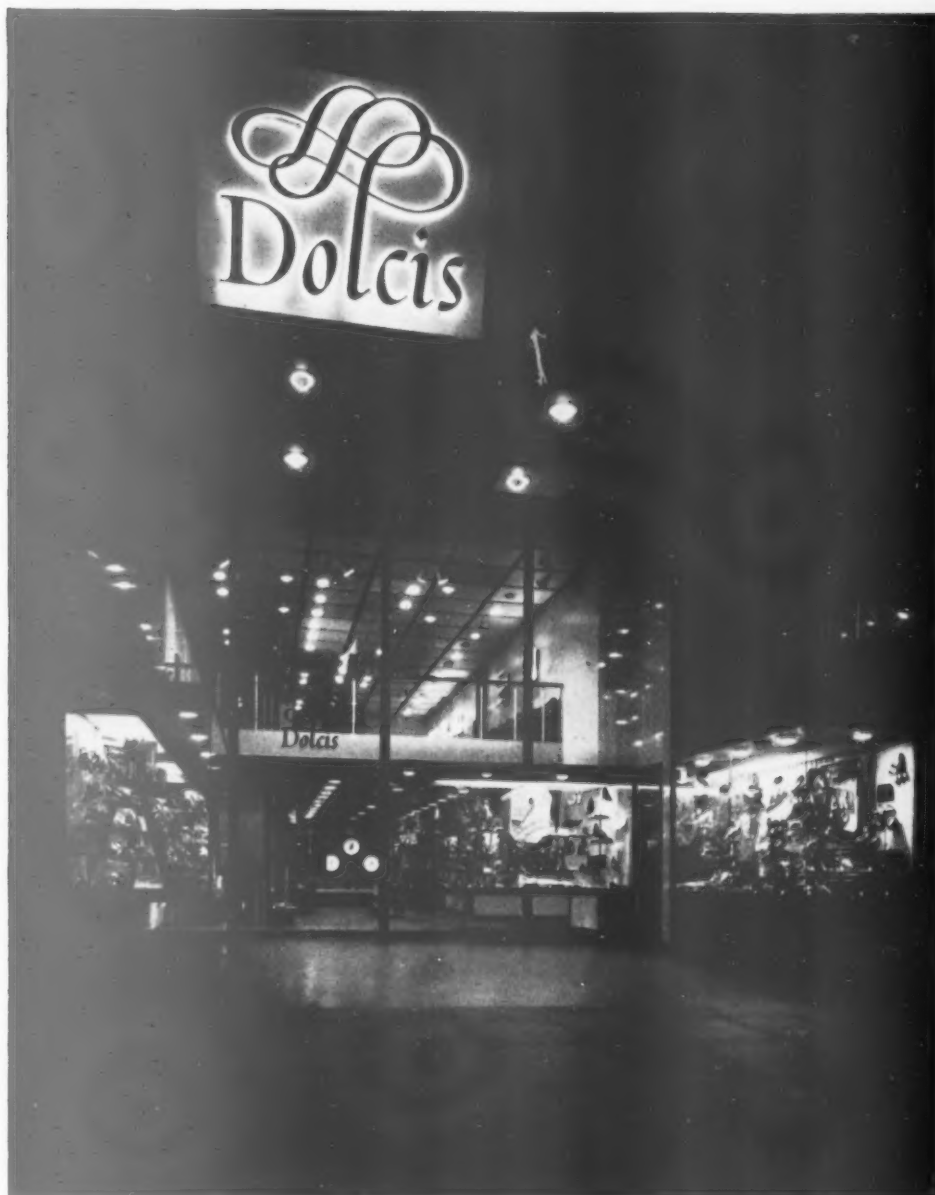
architect:

ELLIS E. SOMAKE,

F.R.I.B.A.

Staff Architect,

Dolcis Shoe Co., Ltd.



From Piccadilly at night

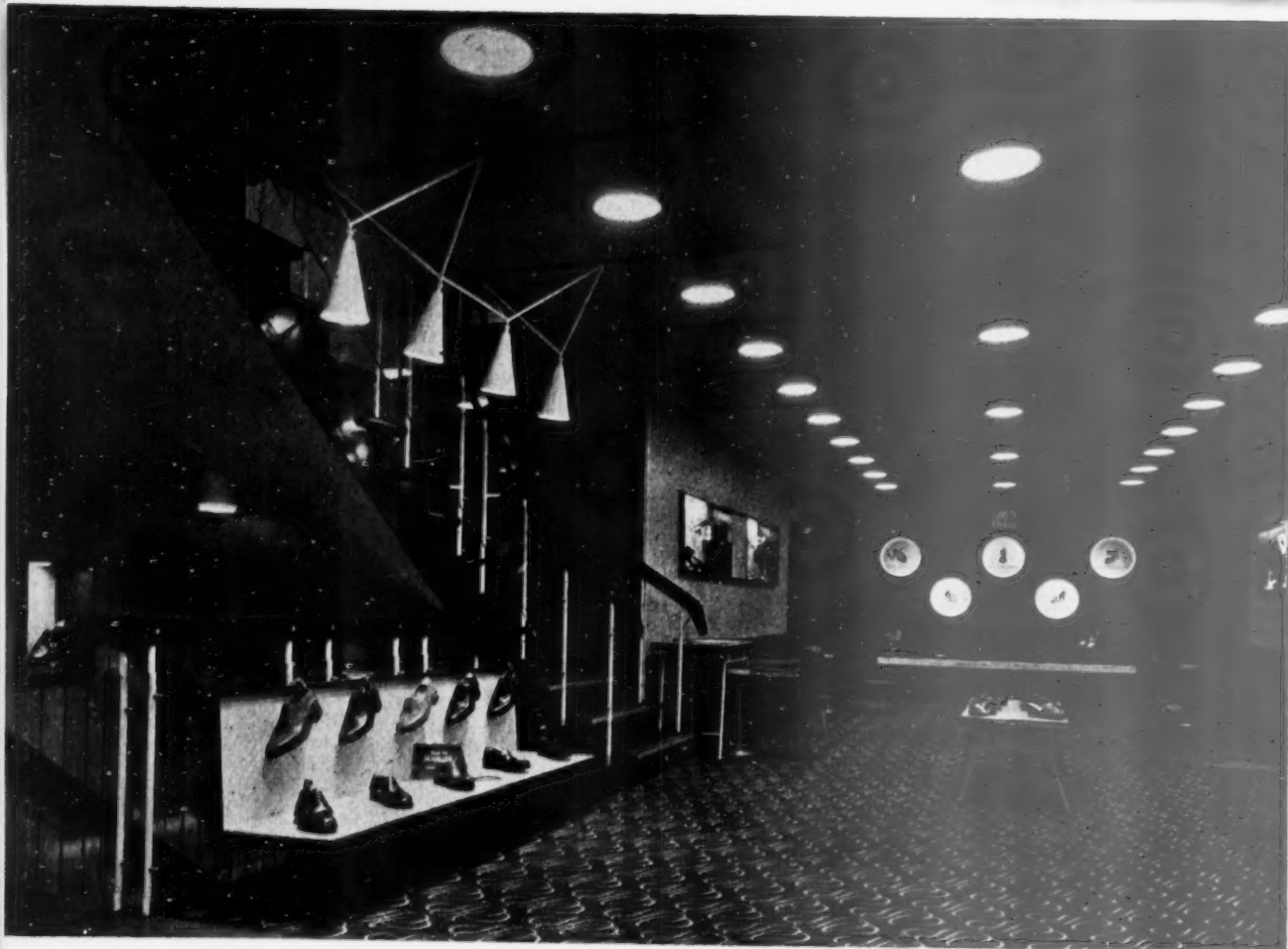
THIS new Dolcis shoe store was opened on May 1 concurrently with their fourth Canadian store at London, Ontario. It occupies premises previously used by Slaters Beta café which operated on this site for many years.

The premises were, of course, quite unsuited for adaptation to a modern shoe store without considerable alteration. They comprised a basement floor, ground floor and mezzanine linked together with steep and inconveniently placed stairways. In addition, there were four further floors over-entered from a secondary entrance at street level. Adding to the difficulties, two Ionic columns divided the shop front at building line into three openings and it was most necessary to remove these to obtain a clear lobby opening which was one of the requirements of the clients. In consequence, the structural

alterations meant that the whole interior was virtually gutted as the District Surveyor had already insisted upon fireproof floors in lieu of timber so far as the upper floors were concerned. In the case of the front elevation, it was found that two columns were in fact structural, being of solid masonry and supporting the total weight of the stone façade. It was apparent that the existing elevation was added to an earlier, possibly Georgian, structure at a later date.

The removal of these columns called for great care and after the front of the building had been shored up from the basement to third floor level and tied to internal framing, needles were inserted at first floor level under the stone columns and piers above. The columns were then broken out and a 2ft 3in brick wall built from basement to ground floor, upon which was cast a 48in x 45in

[Continued on page 123]



Ladies' shoe department, ground floor.



*Men's shoe
department,
basement.*

reinforced concrete spreader beam across the front of the building. Reinforced concrete columns 35in \times 20in were then formed, one at each side, bearing on the spreader beam and, after these had set, a 39in \times 24in reinforced concrete beam at first floor level was cast, thus completing the portal frame which supported the whole of the stone front and upper floors—a load of approximately 200 tons.

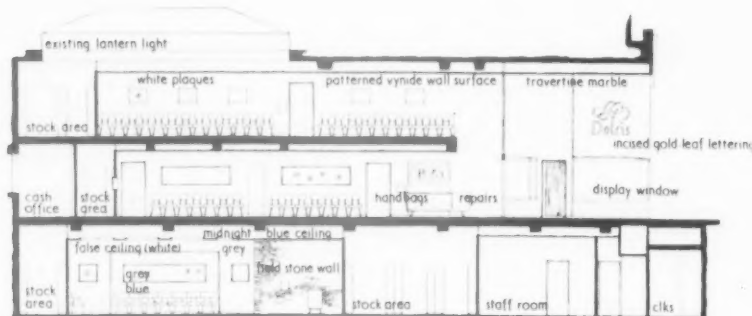
The new shoe store occupies the lower ground, ground and mezzanine floors. The whole of the frontage on ground and first floor forms a spacious entrance lobby flanked on either side by display windows, with a fully glazed window at the rear designed to give an uninterrupted view of both floors from the pavement. The entrance door leading to the upper floors was placed on

the flank wall at the right-hand side and, whilst still prominent, does not take up valuable display space on the building line. The line of the flank walls on either side of the lobby continues beyond the glass into the interior of the shop, as does the panelled ceiling and the terrazzo lobby floor, the whole giving the effect of visual continuity.

The lower ground floor accommodates the Man's Shop, heating and ventilation and other mechanical plant, staff room and lavatories, etc. The main ladies' salon has been placed on mezzanine floor leaving the ground floor for entrance and the sale of impulse goods and seasonable shoes.

The ceilings over ground floor and mezzanine have

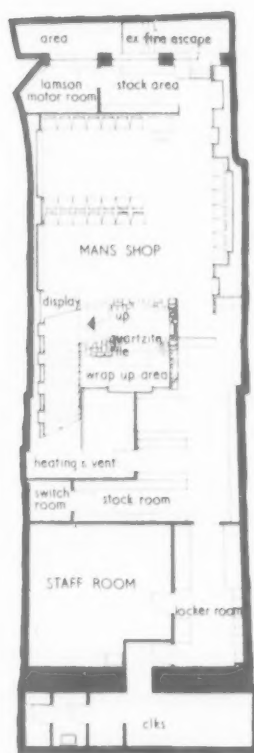
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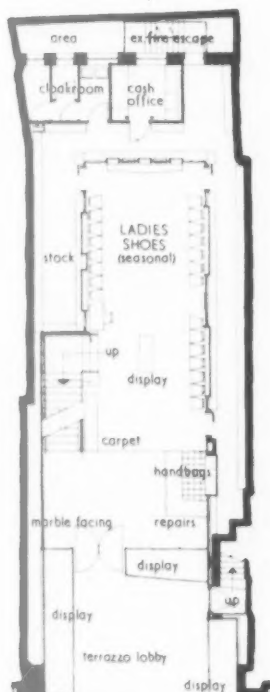
SHOE SHOP

IN PICCADILLY

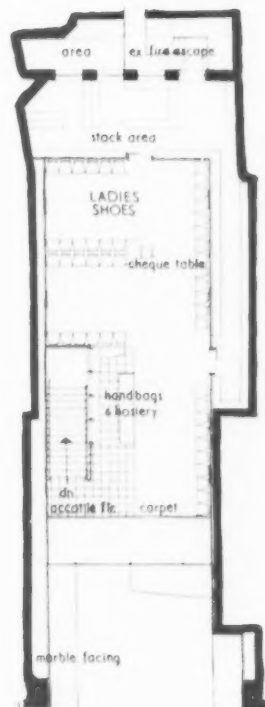
SECTION



BASEMENT



GROUND FLOOR



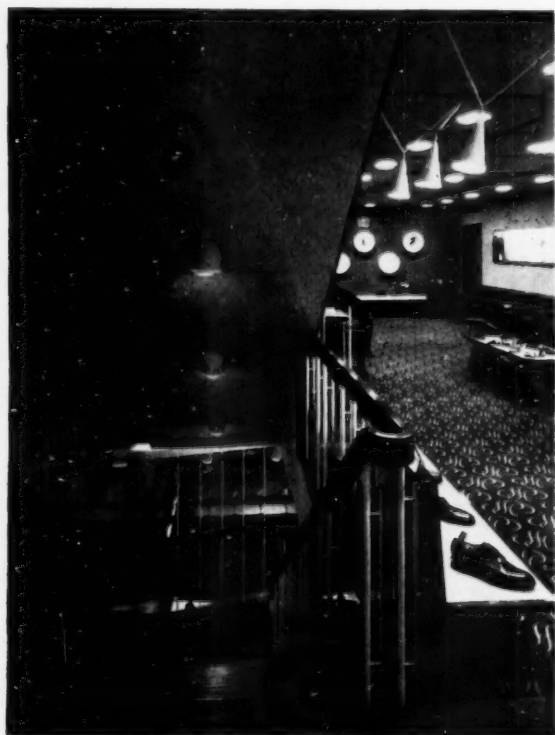
scale 0 5 10 15 20 25 feet

FIRST FLOOR



Ladies' shoe department, first floor

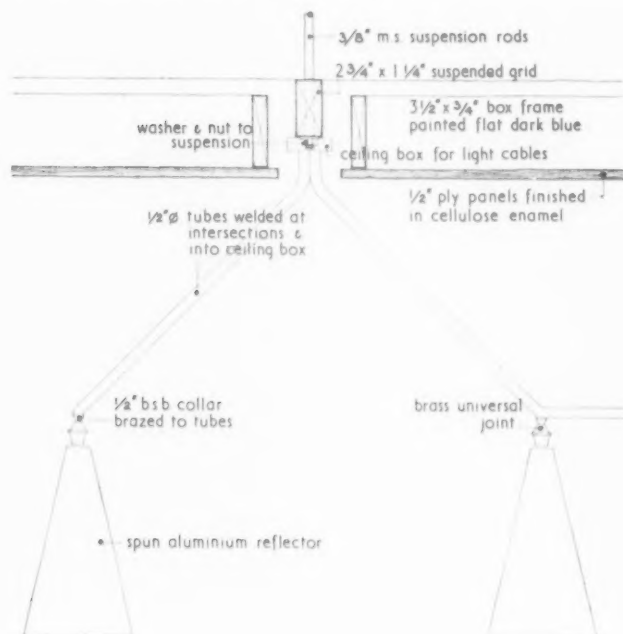
Staircase, ground floor to basement



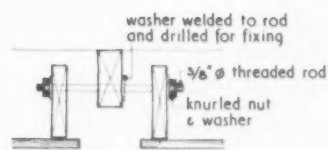
been designed on a grid frame system and are completely flexible, each panel being of a standard overall size but varying in that some are solid, some pierced to include light fittings, and others glazed. Thus the management can alter the pattern of artificial and even daylighting as required. In order to relieve the monotony that might have resulted in a single-colour ceiling of this type, certain panels have been accented in colours of primrose yellow, deep red, and pale Italian blue. A display feature consisting of five circular portholes appears in the deep red rear wall on ground floor and in order to attract the eye by giving movement a colour-changing system of lighting has been installed.

The floor to sales areas is generally carpeted, the walls being finished in paint or Vynide coverings. In the Man's Shop natural materials, such as Japanese oak panelling, quartzite floors and a field stone wall have been used.

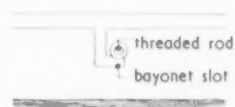
The shopfront is of drawn bronze members finished in natural colour, set between flank walls of polished filled travertine. The contrasting marble at the rear of the right-hand window is Rosso Levanto, which has also been used for the fascia. The Company's trade mark has been incorporated in a box sign and is illuminated from behind to give a silhouette effect at night.



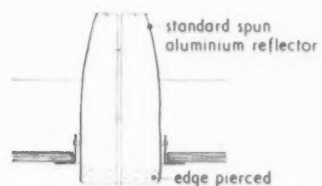
DETAIL OF SPECIAL LIGHT FITTING



SECTION THRO' FIXING 'A'



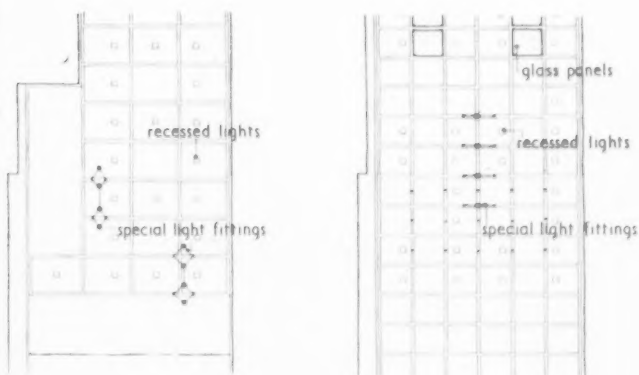
ELEVATION OF 'A'



DETAIL OF RECESSED LIGHTING

Lighting details. Scale: $\frac{1}{8}$ in = 1 in
Ceiling plans. Scale: $\frac{1}{16}$ = 1 ft

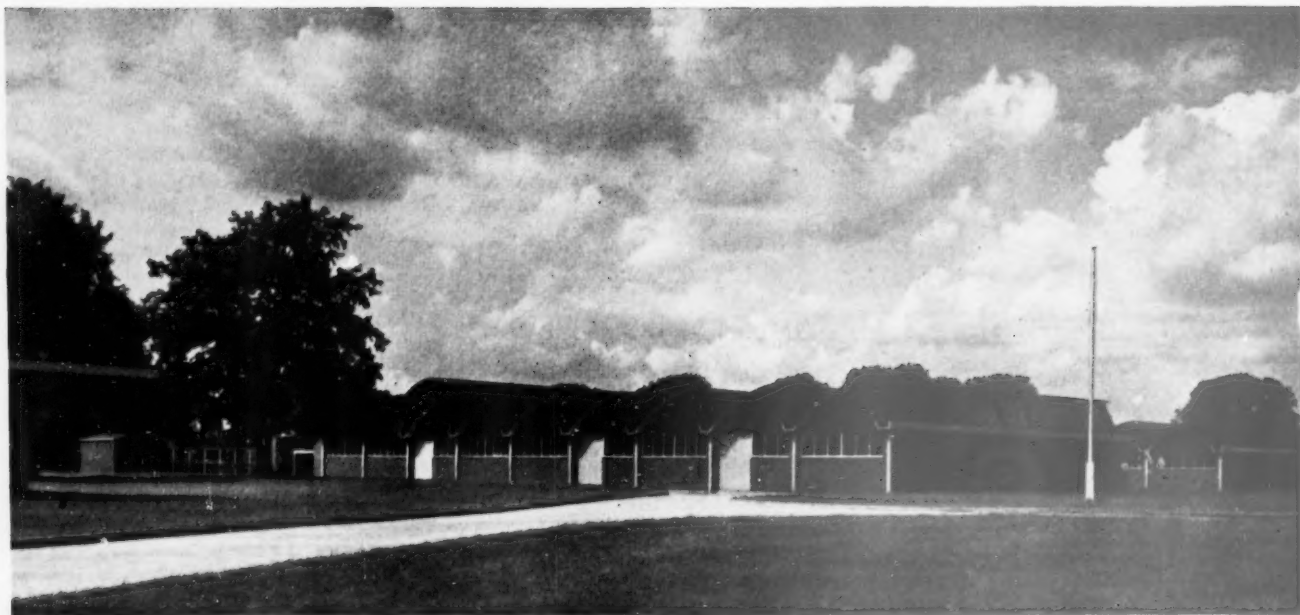
SHOE SHOP IN PICCADILLY

GROUND FLOOR
CEILING PLANMEZZANINE
CEILING PLAN

The structural work was carried out by Messrs. F. G. Minter Ltd. and Messrs. S. H. and D. E. White were Consulting Engineers for steelwork and shoring. The Architect's Assistant in charge was Geoffrey H. Uffindell, A.R.I.B.A.

General Contractors: Courtney Pope, Ltd. Chairs: S. Hille & Company, Ltd. (men's dept.); Upsons Works Department (ladies' dept.). Drapes and Carpets: F. G. Minter (Decorations), Ltd. Electrical Installation: Courtney Pope (Electrical), Ltd. Fabrics: Caton Fabrics, Ltd.; John Lewis & Co., Ltd.; Warner & Sons, Ltd.; David Whitehead, Ltd. Heating & Ventilation: Rosser & Russell, Ltd. Incinerators: Wm. Sugg & Co., Ltd. Leather Work: Woolnough, Ltd. Marble: J. Whitehead & Sons, Ltd. Paints: Thos. Parsons & Sons, Ltd. Patent Flooring: Diespeker & Co., Ltd. Plastic Lettering: Applied Lettering. Quartzite: John Stubbs, Ltd. Pneumatic Cash Tubes: Lamson Engineering Co., Ltd. Sanitary Ware: W. N. Froy & Sons, Ltd. Structural Work: F. G. Minter, Ltd. Terrazzo: Marriott & Price, Ltd. Vynide Wall Coverings: Imperial Chemical Industries, Ltd.





General view from the tennis courts. The Engineering wing is in the foreground, part of the Building wing can be seen on the right.

PETERBOROUGH TECHNICAL COLLEGE

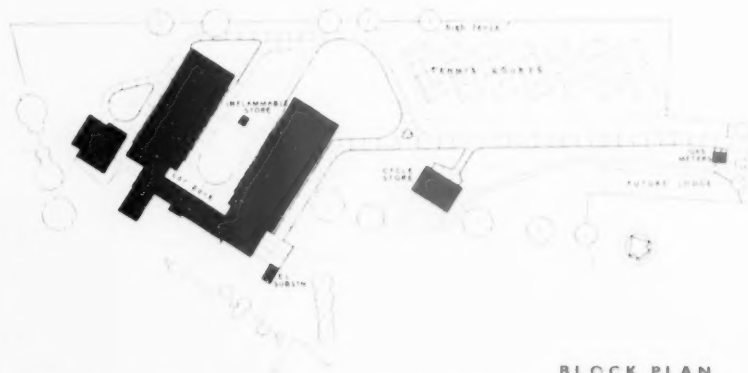
architect: DAVID JENKIN

assistants: Peter Burberry
Robert H. Henley
Peter Stewart

consultants: Ove Arup & Partners
(Structure)

quantity

surveyors: Davis Belfield & Everest



BLOCK PLAN

THE original design for this Technical College won a competition held by the Peterborough Joint Education Board in 1948. Assessor Mr. T. Cecil Howitt.

Instructions were at once issued for the building of the workshop accommodation. This was much developed and modified until the design illustrated was reached. Work started on the site in May, 1949.

Basic Principle of Design

One condition in the competition limited heights to two storeys as far as possible and resulted in an extremely spread plan which sterilized a large area of playing field space. Various revisions have been considered from time to time, including a 12-storey design.

An important point which has to be borne in mind when designing a College of Further Education is that if it is being built in instalments it may be many years

before the whole accommodation has been built, if ever; and it is almost certain that the client's requirements will alter several times during that period. Even when nominally completed further extensions may be required, or rearrangements found necessary in sections already built.

Therefore, in approaching the design of a technical college the first consideration is the establishment of a *principle of growth* based on all known conditions so that the placing and form of the first stage will allow as many alternatives as possible in parts to be built afterwards. At Peterborough, for instance, the position of the workshops was dictated largely by the need for road access direct to all of them and by the fact that in the position chosen the noisy and sometimes dirty activities could be kept well away from more quiet academic ones and interfered not at all with neighbouring private houses

backing on to the site. At each stage the building should look complete in itself though at the same time it should be capable of being part of a larger concept which cannot be exactly foreseen at the time of designing.

Building Materials

When the principle of growth had been established the next consideration was that the structure should be efficient and economical to maintain. The maintenance of a building this size can be a great strain on a local authority and care had to be taken to ease this wherever reasonably possible.

Concrete was adopted as most suitable for roofing the workshops "shell" North-lights, and it followed that the rest of the framed structure was concrete also.

Walls generally are of brick. Externally a local hand-made, sandfaced brick is used. The makers are a small firm and they had to burn many batches of bricks during the erection of the building. Inevitably some variation occurred from batch to batch. This has been accepted as imparting a subtle variation among different parts of the building; but care was taken to keep all the bricks of one batch together for a particular section of wall, otherwise effects not designed for might have arisen in

the event of a change in the bricks part way up a wall.

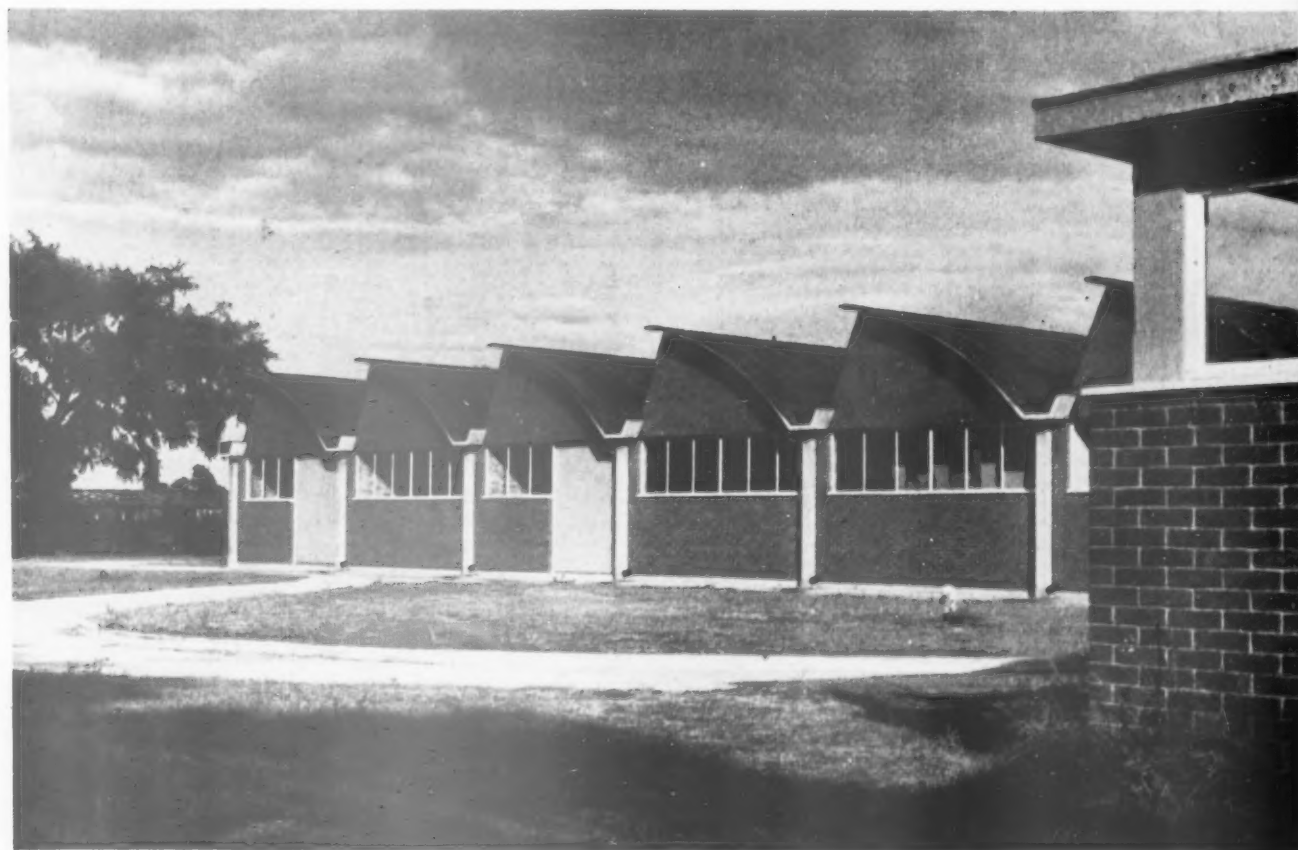
Internally, bricks in the workshop wings are Flettons from the London Brick Company's works at Peterborough. These common bricks are usually burnt with unpleasant colour patterns on the face and often have "fringes" or "kiss marks" which come from pieces of loose clay falling on them from above when laid in the kiln. The L.B.C. burned a special batch for all the college requirements, using new boxes for casting the bricks, and laying the bricks with edges vertical so that loose clay would not fall upon them. The final result is very pleasant. The individual bricks are a complete or graded colour varying from off white to dull pink, the general colour effect being the Fletton pink, and this with a suitable colour scheme devised in relation to it can be quite effective.

Structure

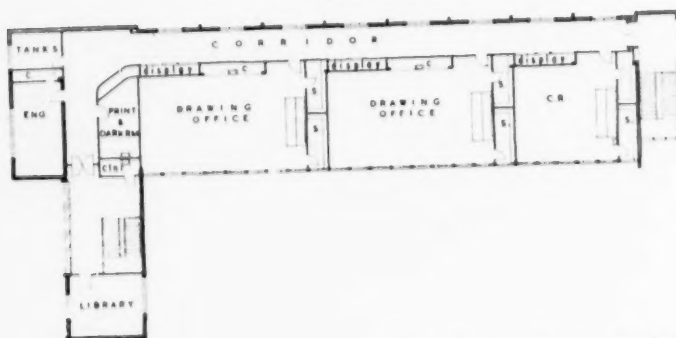
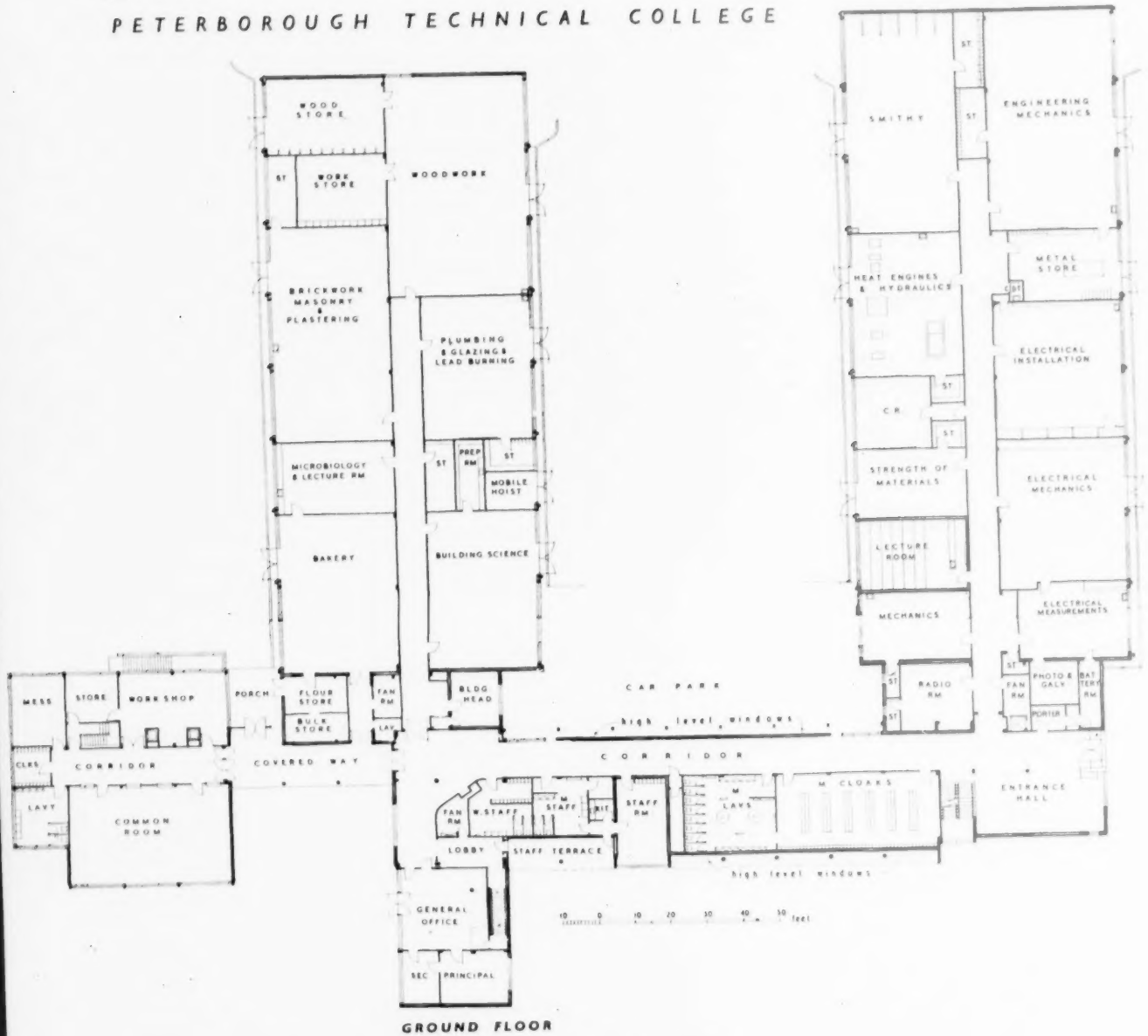
Shell concrete answered the requirements well for North-lights. The clean lines obtained outside and inside have been exploited as far as possible. The exterior profile of the slab is well worth noting. The slabs are 2½ in thick along most of their length, but towards the base it is technically desirable to widen them to 5 in.

(Continued on page 129)

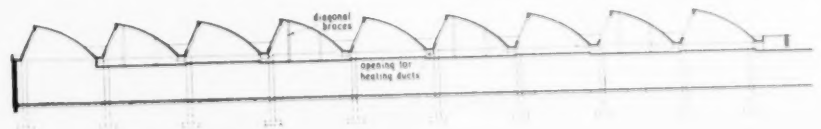
Northwest elevation of the Building wing with the edge of the lavatories to the Commonroom on the right. Note exposed aggregate to the concrete fascia of the latter; the window sill is pressed aluminium.



PETERBOROUGH TECHNICAL COLLEGE



1ST FLOOR





The view of the cycle store from the College side. The mushroom construction enables the store to be extended in all directions. This was the ideal circulation position for the cycle store. The architect did not want to cut off the view of the main buildings from the road by erecting a more solid building for the store. The view below shows the entrance to the College and cycle store on the right. The roof of the store has been carried out sufficiently to cut off driving rain from the cycles. The wall is the height of the cycles.

Continued from page 127

This was seized upon as offering a detail, full of vitality, especially when continued in the necessary 5in along the gutter and up the other side for 1ft 6in, tying it into the next shell unit. It thus avoids the cardboard-like quality so often found in shell elevations and imparts a dynamic quality to the whole run. The architect discovered further that by making the Northlights at 55 deg. instead of 60 deg. and organizing the elevations as shown, the curves remained crisp and a sense of movement was created. The ribs of the copper roof emphasize the curve.

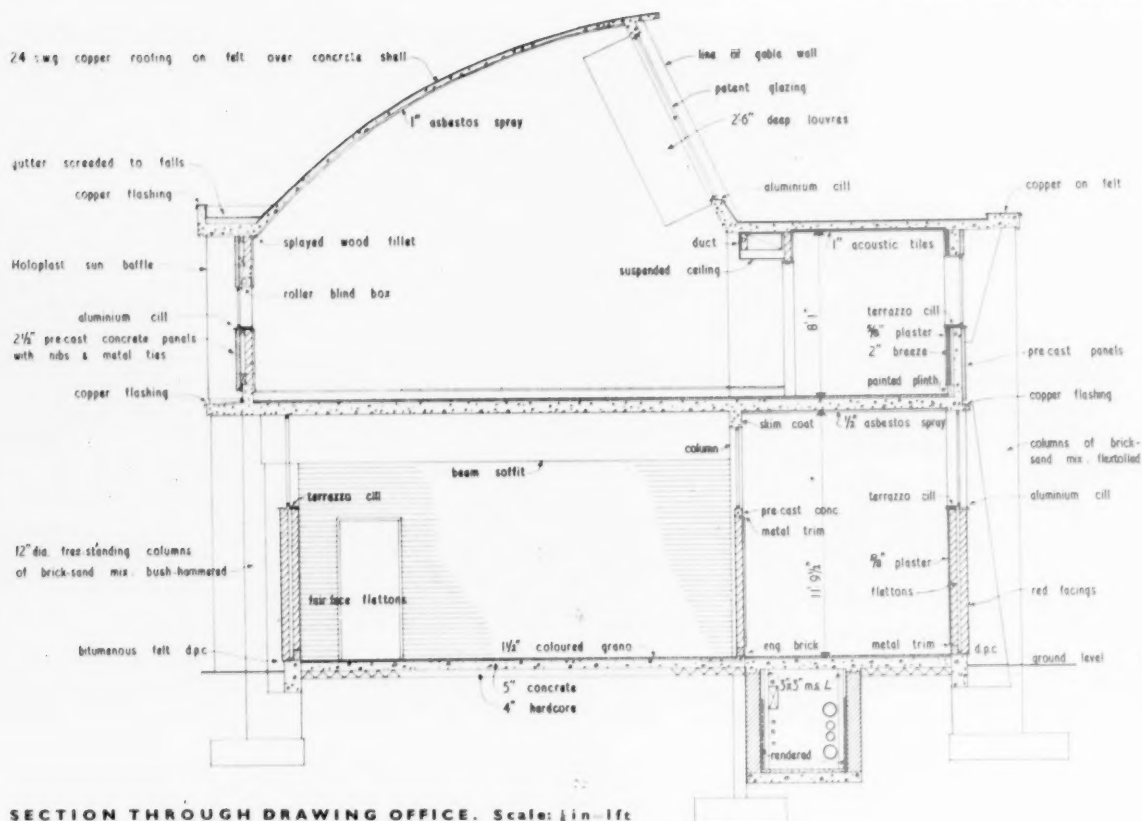
The unreliability of any permanent shuttering known to the architect for the shell soffits led him to have them cast in steel shuttering and then sprayed with one inch of asbestos spray; an all-in-one material which provided adequate heat insulation, sound absorption from machines, and decorative finish where a pleasant silver grey was suitable. White distemper was applied where additional room light factor was required.

External Concrete Finishes

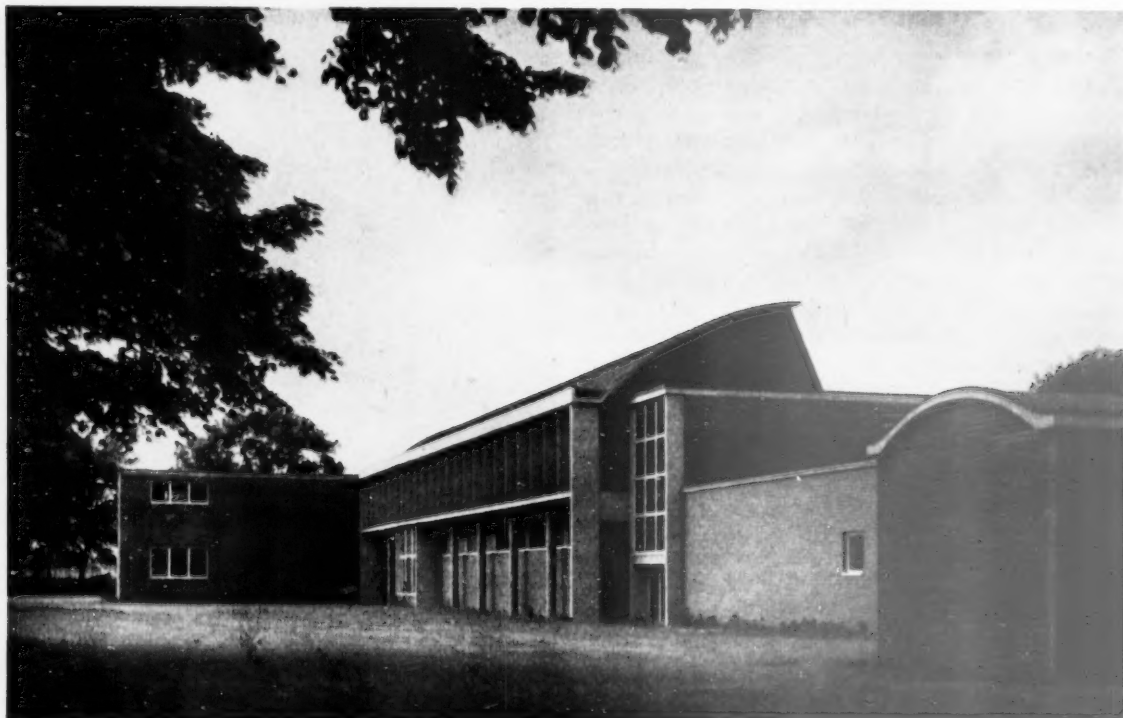
From the beginning the architect decided to use concrete with a natural finish where exposed; as would be obtained from the shutter, by bush-hammer or by exposing the aggregate. Bush hammering has been reserved for larger areas, while concrete left off the shutter with laitence has been used in certain positions and with certain colours and amount of brickwork which the architect thought suitable; bearing in mind that the

[Continued on page 131]



SECTION THROUGH DRAWING OFFICE. Scale: $\frac{1}{2}$ in = 1 ft

The Southwest elevation of the two-storey block. The H.T. sub-station is in the foreground on the right. The sun baffles to the first floor drawing offices can be seen in the centre of the picture, they are of Holoplast, painted. The main building block of the future extension will go to the left of the far wing, which now contains general office, Principal's room, library and another staircase.





The Northeast elevation of the two-storey block. The tapered columns hold up the first floor and the roof, but allow the roof to expand independently from the rest of the structure. Walls are not pinned under the roof, but have a sliding joint. The small windows light the drawing office corridor; the Northlights are in the drawing office.

PETERBOROUGH TECHNICAL COLLEGE

Continued from page 129

colour of the concrete changes from light to dark with age.

Coloured concrete, too, was soon found to be pointless, but colour obtained by exposed aggregate was a different matter. Grey Portland cement has been used throughout.

There was much experiment to find a mix and surface treatment which would produce a building obviously concrete in structure and finish which would *mellow with age*. The Building Research Station showed the architect the results of their long-range experiments on mixes and facing; Wexham showed him their samples and carried out a number of experiments for this building with local materials supplied.

Finally, most of the exposed concrete was left in relatively narrow strips off the shutter. In some circular columns and the two circular chimneys use is made of red brick sand which replaces part of the ordinary sand. Some concrete facing slabs were specially made to another mix and the surface gently washed off to expose the aggregate which was predominantly brick.

External Colour

When the sun shines the deep projections make intense shadows and exciting form. On dull days the colour of the materials shows up and becomes deeper on

humid days. On really wet days the building glows in deep reds. There is a play of colour from day to day—and texture—between wet and dry as well as from morning to evening. The “Stonite” rendering on the ends of the shell roofs contributes much to this. It is a cool brown when very dry, and intense, rich deep brown when wet. Another big contribution is the grey Portland cement which gives the brick sand mix a pinky oatmeal quality when dry and deep crimson brown colour when wet. All this is in a setting of trees and wide areas of green grass.

There are flower gardens at points of pause, such as by the road entrance, and by the entrance to the main building.

Weathering Details

To enhance the mellowing-with-age idea, the architect tried to avoid accidental staining, and carried out some research before designing his own details. He found that the chief causes of uncontrolled stains were shallow or too small throatings to soffits—or no throating at all—and flashings without a drip; both really the same defect. A throating, he found, which looks coarse and large on an F.S.D. of a concrete eaves may be quite unnoticed in real life. The throatings at Peterborough have all



PETERBOROUGH
TECHNICAL
COLLEGE



The students' common room and boiler house wing. The former is planned to be the maintenance workshop for the College when the buildings are completed.

worked quite well. The chamfer on one side enables the batten to be withdrawn when the shuttering is struck without so much risk of spalling an edge off the concrete. There is a tendency to leave the throating batten in position until it falls off in order to save the labour; but there is a strong chance of loose cement dust being washed across the soffit by rain and then down the new brickwork, with permanent staining as a result. Therefore the throating is almost more important the moment the shuttering has been struck than at any other time later.

Flashings have been designed not only to throw off water and avoid streaks on faces, but to withstand mechanical damage by ladders.

The fact that the roof of the shells was copper suggested copper flashings. This would have produced patina staining, so lead-coated copper has been used. It has the colour and resistance of lead and the mechanical properties of copper. So far no sign of copper patina has occurred on the concrete, and the roofs have been on for two years.

Workshops

The workshops at Peterborough have been designed as two large areas, 80ft x 160ft and 80ft x 180ft, with permanent roof and external walls. Main services slung down the centre of each unit allow water, gas, electricity, telephone, fire main, heating, to branch off at 20ft intervals at right angles either side under the concrete gutters. Each 20ft bay has identical opportunities for light and heat. With relatively little expense and no interference with main structure or basic services the inside can be gutted and replanned on a 20ft bay unit

in the length of each wing and a 2ft 6in unit across. With a 5ft unit this principle goes for the Drawing Office block as well.

Heating in workshops is by a large unit heater over alternate bays of the corridor which takes air through the North-light and blows it along ducts attached to the soffit of the concrete gutters. Each duct takes care of one 20ft bay, and has an overspill the other side under the North-light glazing to reduce down draught.

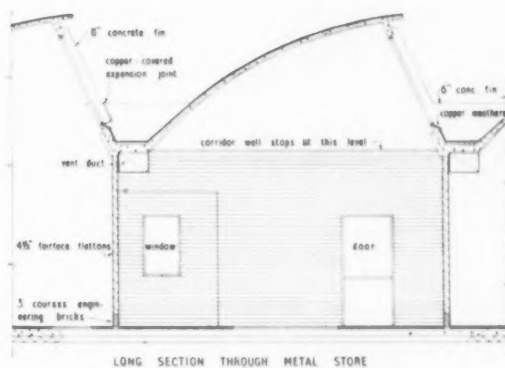
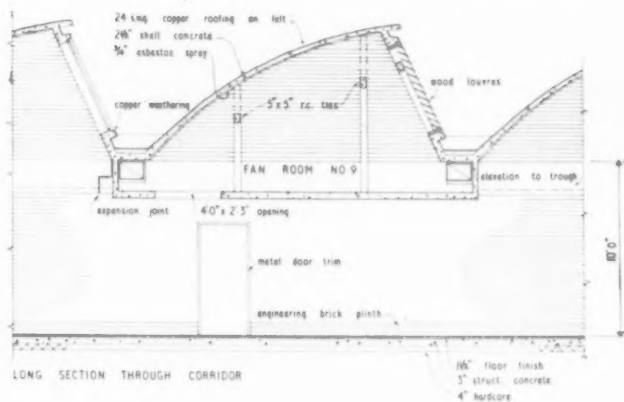
Lighting is tungsten in the workshops, placed high in the ceiling. These flood-lamps mix by the time their light reaches eye level, and various colours can be used as required by the purpose of the room. Tungsten was used to avoid stroboscopic effect in machine rooms which might have proved very dangerous.

Heating and Ventilation

The Installation consists of two main heating sections and a hot water service section all of which are served from a range of six gas fired boilers.

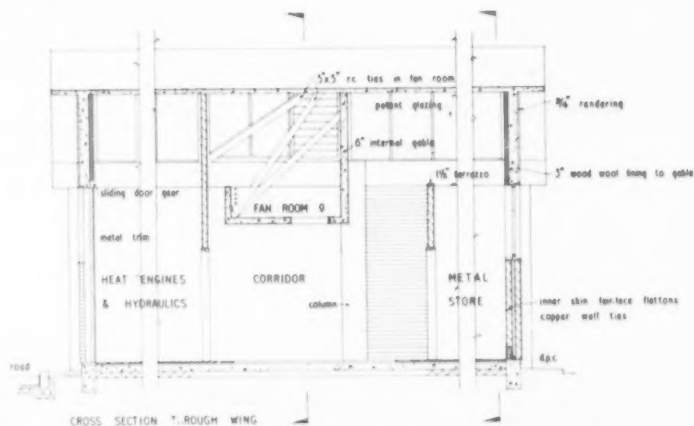
All boilers are installed in a Basement Boiler House under the Common Room Block and are coupled to two specially designed vitreous pipe-lined chimneys with Reinforced concrete casings. Space is provided in the Boiler House for the main Circulating Pumps and for future extensions for which additional boilers will be required.

The Heating of the central Ground Floor Block and certain of the First Floor Rooms is by Convectors mainly recessed into walls and served by an independent circulation which is fitted with a thermostatically operated Climatic Control.



ENGINEERING WING DETAILS

Scale: 1 in = 10 ft



A view of the engineering wing taken from the first floor corridor of the drawing offices. Note shadows.



Continued overleaf

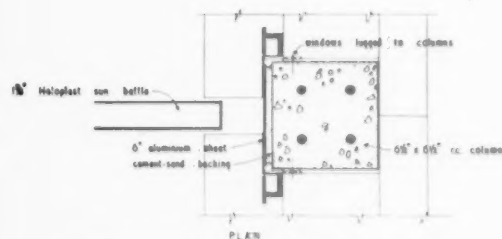
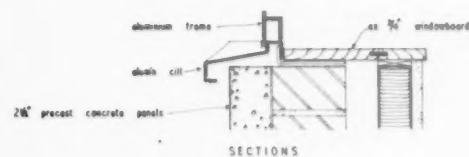


The entrance hall. From outside you pass in under the very heavy concrete canopy with its soffit only 7ft 0in above the floor. The hall with its oriental blue high gloss ceiling appears spacious by comparison. Notice boards on the right reverse to make blackboards.

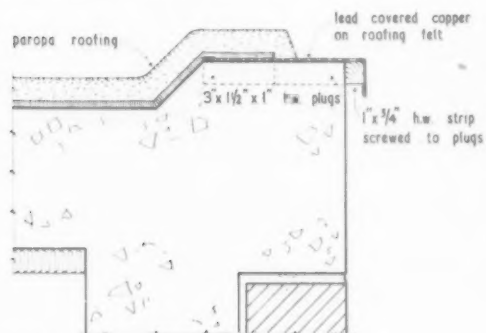
PETERBOROUGH TECHNICAL COLLEGE

architect: DAVID SENKIN

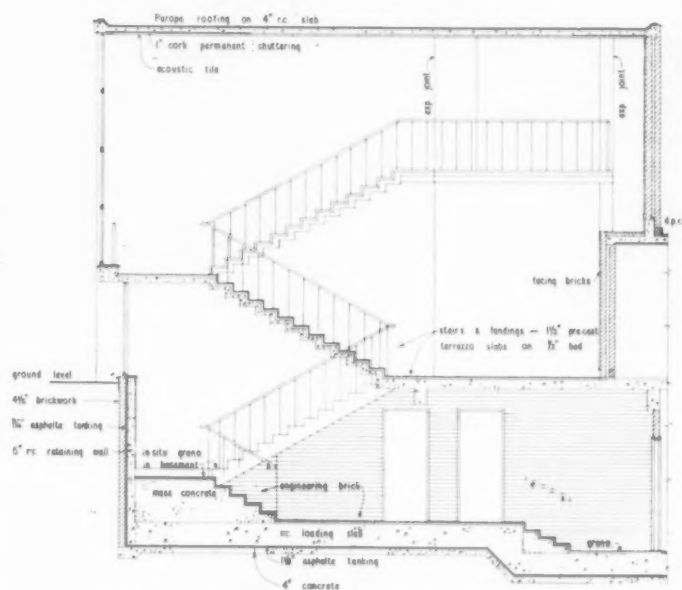
General Contractors: B. H. Burgess, Ltd. Acoustic Tiles: The Merchant Trading Co., Ltd., Kerridge, Ltd. (Fixing). Asbestos Spray to Shell Roof Soffits: Turners Asbestos Cement Co., Ltd. Bakery Oven Boiler: Ellerstyle, Ltd. Bricks: London Brick Co., Ltd. (Flettons), Raunds Manor Brickworks (Facings). Built-in Furniture: John Sadd & Sons, Ltd. Blackboards: Kingfisher, Ltd. Coat Lockers: K. Harvey. Concrete Tile Flooring: Mosaic & Terrazzo Precast Co., Ltd. Copper Roofing: Fredk. Braby & Co., Ltd. Doors: Morris Singer, Ltd. (Toughened Glass), Veneer-craft, Ltd. (Flush), Venesta, Ltd. (Steel Faced). Door Furniture: Comyn Ching & Co. (London), Ltd. Door Mats: National Institute for the Blind. Duct Covers: Dover Engineering Works, Ltd. Electrical Installation: Hartley Electromotives, Ltd. Fencing: The Penfold Fencing & Engineering Co., Ltd. Fire Extinguishers: Minimax, Ltd. Fire Hose Reels: Pyrene Co., Ltd. Flagmast: J. W. Gray & Sons, Ltd. Flat Roofing: Frazzi, Ltd. Gates & Railings: G. A. Harvey & Co., Ltd. Glazed Wall Tiles: B. Finch & Co., Ltd. Heating & Ventilation Installation: The Brightside Foundry & Engineering Co., Ltd. Lettering and Numeral Panels: The Lettering Centre. Metal Door Trims: John Thompson Beacon Windows, Ltd. Playing Fields (Draining, Levelling, Seeding): Bradshaw Bros. (Contractors), Ltd. Plumbing: F. G. Skerritt, Ltd. Quarry Tiles: Dennis Ruabon, Ltd. Roller Blinds: Tidmarsh & Sons. Rooflights: J. A. King & Co., Ltd. Rubber Fibre Link-Mats: Nuway Manufacturing Co., Ltd. Sanitary Equipment: John Bolding & Sons, Ltd. Scaffolding to Shell Concrete: Kwikform, Ltd. Sliding Door Gear: British Trolley Track Co., Ltd. Staircase Balustrading: Birmingham Guild, Ltd. "Stonite" Rendering: Callow & Keppich. Sun Baffles: Holoplast, Ltd. Tanking: Permanite, Ltd. Tennis Court: W. H. Gaze & Sons, Ltd. Terrazzo Window Sills and Stair Treads: Malacarp Terrazzo Co., Ltd. Venetian Blinds: J. Avery & Co., Ltd. W.C. Cubicles: Venesta, Ltd. Water Main: B. Stokeley. Windows & North-lights: Williams & Williams, Ltd. Wood Block Flooring: Horsley Smith & Co. (London), Ltd.



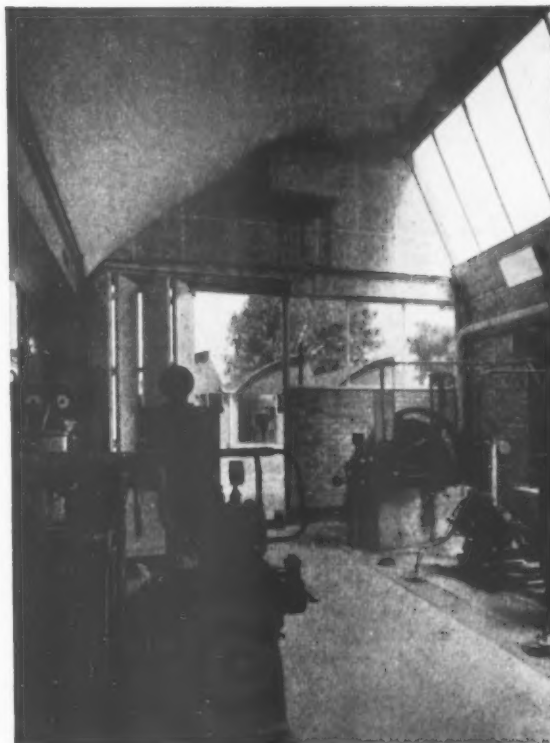
WINDOW DETAILS. One-eighth F.S.



EAVES. Scale: One-seventh F.S.



DRAWING OFFICE ENTRANCE STAIRS.
Scale: One-tenth inch = 1ft.



A bay in the heat-engines workshop. This is typical of others but with wall finishes varied as required. The woodwool "Thermacoust" slabs are permanent shuttering.

Entrance hall and staircase, main corridor.



EXPANSION JOINTS AT PETERBOROUGH TECHNICAL COLLEGE

By DAVID JENKIN, B.A., A.R.I.B.A.

This is a personal account of how the architect approached and dealt with the problem of thermal expansion when designing Peterborough Technical College. It does not pretend to be an authoritative article on the subject, but it is hoped that the considerations recounted may help some with similar problems.

THE thermal expansion of a building is affected by seasonal variations, from midwinter to midsummer, and by daily variations which can be quite diverse as between a chilly night and a hot day. It is interesting at Peterborough to watch any column on an outside face of the workshop blocks begin the morning of such a day tight against the brick wall behind. As the 80ft wide roof gets hotter by early afternoon the top of the column, which is fixed to the roof and not to the wall, moves away from the brick leaving a space at the top over an eighth of an inch wide which narrows downwards to nothing at the bottom. [Fig. 1.]

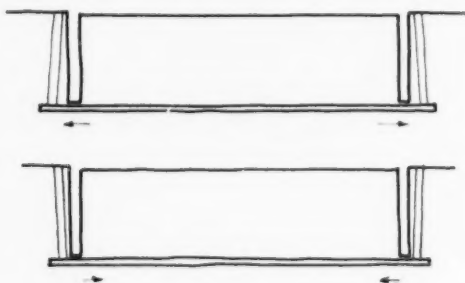


Fig. 1

I discussed the problem of expansion joints with several people. Their incorporation would add planning and structural problems and they could become an expensive item. Economical solutions were important. I had heard of buildings where expansion joints had been ignored and the architects had got away with it. I had also heard of buildings where they had been used and yet cracking had occurred. These, no doubt, were the exception rather than the rule.

Workshop Blocks

After consultation with the Building Research Station and the Structural Engineers I divided the building into units small enough to expand and contract without distorting

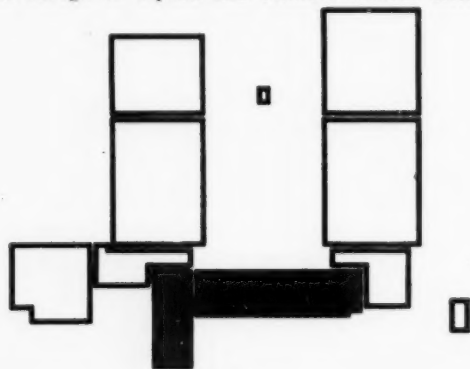


Fig. 2

sufficiently to form noticeable cracks. The safe limit between expansion joints was considered to be 50ft to 60ft; but these joints begin to mount up expensively if you start using them lavishly. I found that in the workshop blocks, with mainly 4½ in fairface bricks in mortar consisting of lime-cement-sand (1:3:12) I could safely go to 100ft without cracks provided I avoided pinning the central corridor walls up to the ceiling in the usual way, formed straight joints at the junction of internal and external walls, and cushioned the abutment of walls upon columns. This made building units 80ft wide and 100ft long composed of five 20ft bays. Due to the risk of distortion towards each end of the 100ft units I was advised to restrict plaster on walls to the three middle bays, and to do the same with the large sliding-folding doors of the workshops to avoid their seizing up. [Fig. 2.]

The simple rhythm of the workshop bays would have been ruined by coupled columns on the elevations at expansion joint positions. A detail was, therefore, worked out which rendered the expansion joint well-nigh invisible. Fig. 3a shows a typical plan detail of external column and all, with internal rainwater pipe. Fig 3b shows how the additional column is accommodated at expansion joints.

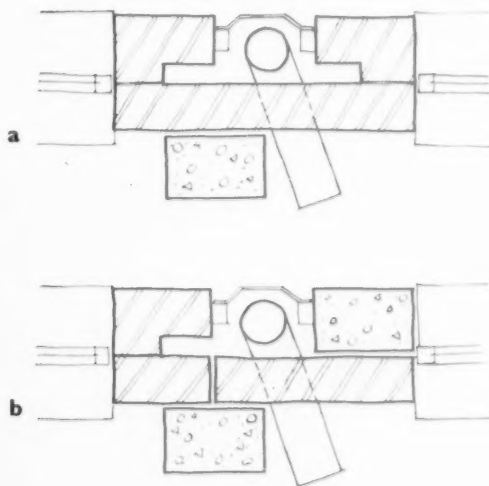


Fig. 3

Drawing Office Block

The two-storey section under the shell roof did not lend itself to cutting into two satisfactorily, and its 120ft length was dealt with differently.

On the N.E. elevation the columns stand free and hold the first floor on brackets. This allows the end columns to take a bend up to ¼ in in the upper part of their height when the roof lengthens with the sun on it and the first floor stays roughly as it was because it is protected. The top



Fig. 4

walls are not pinned to the roof, but the roof can slide over them. [Fig. 4.]

On the S.W. elevation there is another system, an adaptation of the old-fashioned principles of wood panelling and tile hanging. Rectangular pre-cast concrete slabs are hung by nibs on the structure with dry joints, and have enough space between them to take the distortion of the structure towards a parallelogram when it expands. They keep out the worst rain. Any small splashes which penetrate the cavity behind just leak out at the bottom. [Fig. 5.]

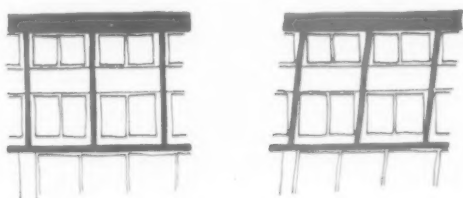


Fig. 5

Structure and Infilling

There was the question whether to tie infilling walls firmly to the concrete frame so that all moved as one monolithic entity or to separate them. The former way appeared more practicable for a massive type of building or where the infilling was more closely part of the structural framework, but here, where materials had been designed with a view to using the minimum amount per job, the risk of shear due to thermal movement would have been too great, and so structure and infilling are to some extent independent.

Types of Expansion Joint

When a simple concrete slab expands under hot weather conditions it expands in all directions. A long, narrow slab will have a total expansion along its length relatively greater than across its width. A joint between the end of such a slab and another structural member must take account of this head-on action of opening and closing in cold and hot weather. A joint on the long edge of the slab must be able to take a sliding action. In addition, on the short end there is a little sliding action on all parts but the middle and along the side a slight opening and closing action.

It is important, in designing expansion joints, to realize that thermal movement is a three-dimensional activity.

Sealing the Vertical Joint

A gap of half an inch through an external wall must be sealed against wind, rain, insects, etc. A similar gap between internal walls if left open might produce noise interference, spread of smells, etc., apart from being a potential dirt pocket.

The copper sealing strip was designed in my office in consultation with the sheet copper experts responsible for the copper roof (Fig. 6). Instead of the usual "V" shape (Fig. 7a), it is formed like a narrow "U" (Fig. 7b). Copper will split if you bend it to and fro over one place many

times. In a building life of say only fifty years not only is there the main seasonal variation each year, but there are the relatively frequent alternate spells of hot and cold and the variations from warm day to cool night. Since every change in temperature must produce another bending motion on the metal a split on the tip of the "V" strip must surely be expected long before the fifty years are up. The "U" has been devised to avoid this. As an expansion joint closes the long sides rest firmly against the wall faces and the strain is distributed to all parts of the curve (Fig. 7c). When the joint opens out very wide the narrow curve does not have to open out proportionately since the wide straight sides will take on a curve themselves (Fig. 7d).

To protect the metal from attack by corrosive agents the strip was painted with two coats of bitumen before use and touched up as necessary before completing fixing.

It was fixed in the following way:

1. The column or first brick wall was rawplugged at 12in centres vertically to take No. 8 1in screws.
2. A mastic gun was run the whole length to provide a seal between structure and strip.
3. The strip was screwed to the structure through the 2in x 1/2in holes formed by stamping out the lug.
4. The adjoining brick wall was then erected and the lugs built into the courses, the mortar being flushed up against the strip.
5. Immediately on completion of brickwork the joint was cleaned out with a stiff brush.

Where appearance demanded, or where there was danger of unsuitable objects being inserted into the joint, it was pointed up with mastic set in a little from the face of the wall to allow for squeezing outwards.

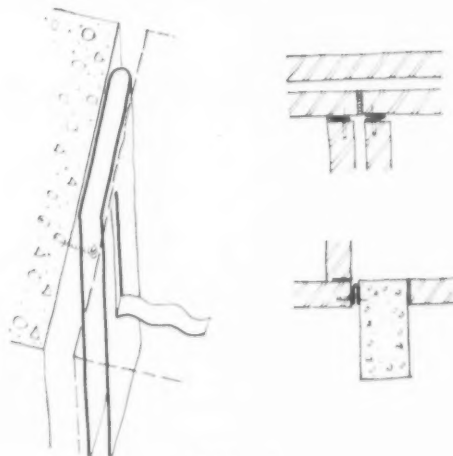


Fig. 6

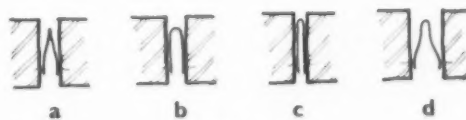


Fig. 7

Between Coupled R.C. Columns

It was found impracticable to insert copper strips firmly between double columns at expansion joints. First one column would have been poured and the strip screwed to the column. Then the strip would have fouled the shuttering for the adjoining column, only half an inch away. The

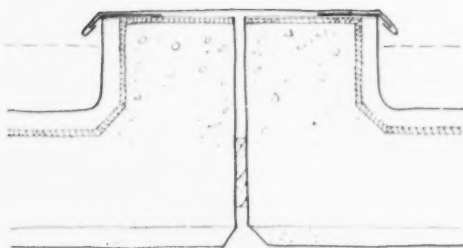


Fig. 8

operation adopted was to cast the first column and strike the shuttering; then to place against the face of the column at the expansion joint a sheet of $\frac{1}{2}$ in fibreboard impregnated with bitumen which was used as permanent shuttering for the next column, the remaining sides being shuttered in the usual way. This fibreboard sticks remarkably well to one column or the other and takes compression. For the sake of neatness, on completion of the concrete work it was cut back $\frac{1}{2}$ in from each exposed face.

Expansion Joints on the Roof

The concrete upstands were taken sufficiently high above the eaves upstand beams to prevent water leaking in when the rainwater pipes became blocked and water filled the basin formed by the eaves upstands. Details have been published from time to time of the copper over such upstands showing an inverted "V" to take the movement. This suffers from the same defect mentioned earlier and is particularly vulnerable to kicking by window cleaners or men carrying out repairs. The detail shown slides at the ends, has roofing felt under the copper to serve as a cushion, and can be stood upon without ill effect. [Fig. 8]

Floor Expansion Joints

These have been devised to hold liquid either spilt or used in washing floors, as well as dust, so that it does not

percolate through the joint and stain the ceiling beneath. They had to be as cheap as possible. [Fig. 9]

Types a and d show how aluminium sections are incorporated in a design to hold mastic which is indented to allow for the squeezing action when joints open and close. Type a shows a joint in a terrazzo floor, and Type d a joint where a floor pushes against a wall.

Types b and c show the sliding type of joint but have enough tolerance to take the slight expansion at right angles which would tend to close the gap. These are sealed by thick car grease.

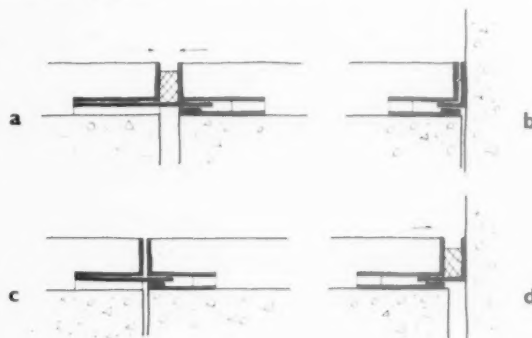


Fig. 9

Straight Joints in Brickwork

When a wide building expands under heat, the distortion is in all directions, though more in some than others, and where brick walls meet reinforced concrete frames, either at columns or where pinned up under a beam, a certain amount of shear is liable to occur. Here all vertical straight joints and tops joints of brick walls abutting on to or pinned up under reinforced concrete have $\frac{3}{4}$ in wide $\frac{1}{2}$ in felt as a cushion. Vertical straight joints have the felt wired into the wall as it is built up.

TIMBER NOTES

STOCKS of softwood in the country are building up at a tremendous rate as buying continues by the importers. By July far more softwood had been bought than could be used, even if this material were taken off licensing for the rest of the year. This will ensure a varied stock from which the builder will be able to obtain the specifications desired, but it does not mean that all softwoods will be plentiful.

While most importers have been buying as much as possible of high-grade joinery redwood, Scandinavian producers have not had any great quantities to offer. There is no shortage of this timber yet, but the demand for it is so good, and the supplies clearly limited, that it is fairly safe to say the price of this wood will remain firm, no matter what happens to other grades of softwood. With such a large softwood stock in the country it is expected the importers will be able to bring down prices a little when buying starts shortly for 1954 shipments.

Licences are now being issued much more freely for softwood by the authorities, and the monthly rate of use is at record post-war level. Owing to the high price of softwood, the Minister of Materials has been advised by a committee investigating the probable result of removal of softwood licensing that yearly consumption would increase above the present level by no more than 230,000 standards in three years. It is hoped in the timber trade that this might encourage the Minister to take away this control.

The restrictions upon hardwood imports have now been relaxed. Importers may now buy from the non-dollar countries, licences being granted up to the end of this year, though there is no guarantee that licences will cover full contract quantities. However, the hardwood trade is passing through a difficult period and is not likely to buy heavily, so probably licences will be granted for all the trade will wish to buy. Principally, this relaxation brings again into the scheme the countries in Europe, and will permit a better variety in stocks and perhaps lower prices. The

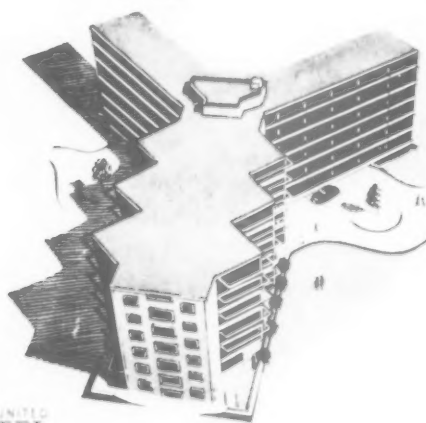
competition provided by the European countries for the shippers in the sterling area might lead to some small reductions. Good quality British hardwoods are now being offered at prices which are remarkably low, especially from the storm-damaged areas in Scotland.

While plywood importers are being given more valuable import licences as a result of their purchases from the national stock of plywood, the prices have not been reduced. As more plywood is imported privately and the Government stock diminishes, it is felt probable that reductions will have to be made in the official price list. Difficulty is being experienced in the supply of Finnish BB grades, Russian birch plywood in the BB grade, and Russian alder plywood. Users of these stocks would be advised to buy wherever possible.

The same advice can be given to users of imported fibre building boards, for it is already apparent that shortages will develop rapidly; certainly well before the quota period for imports ends in December.



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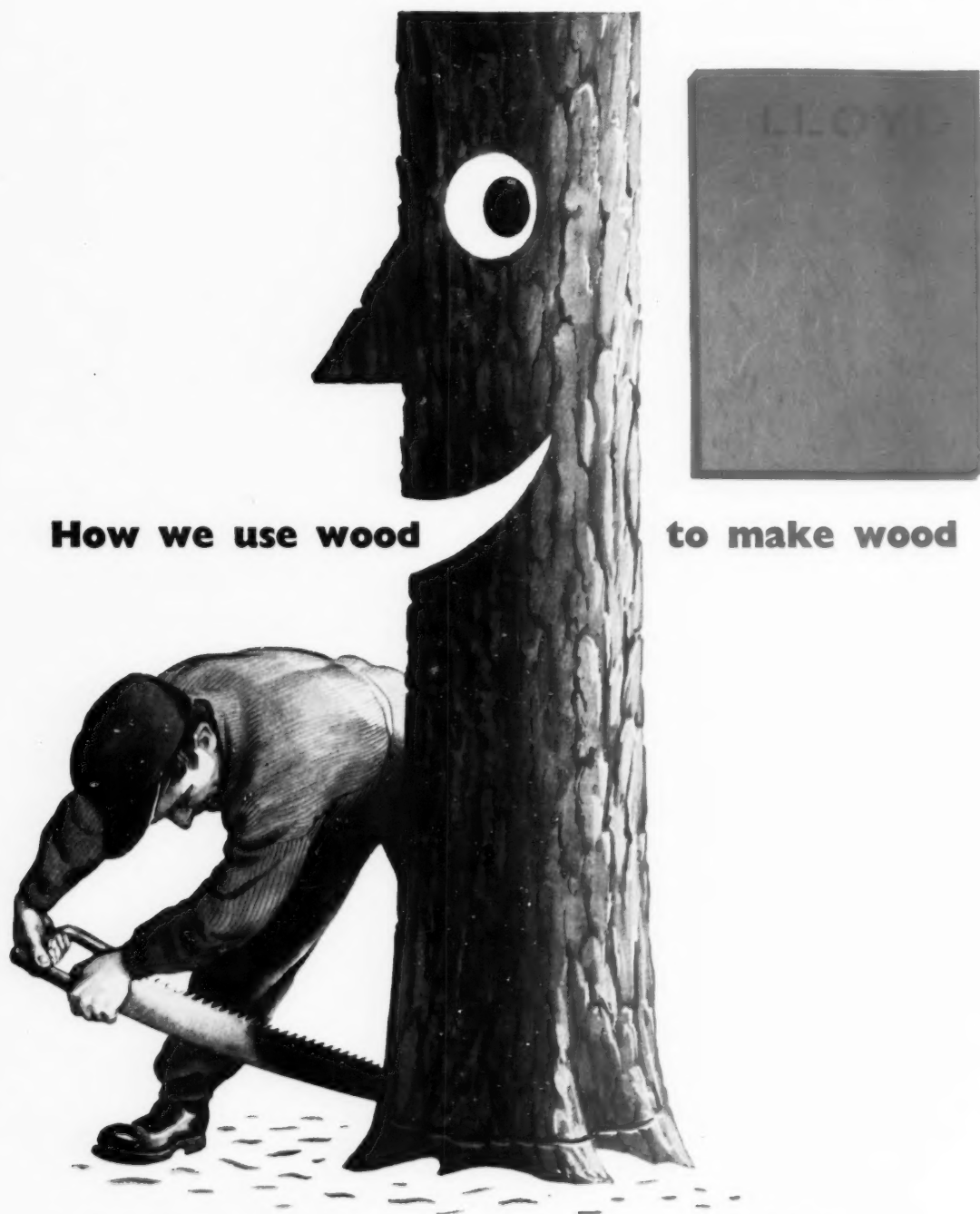
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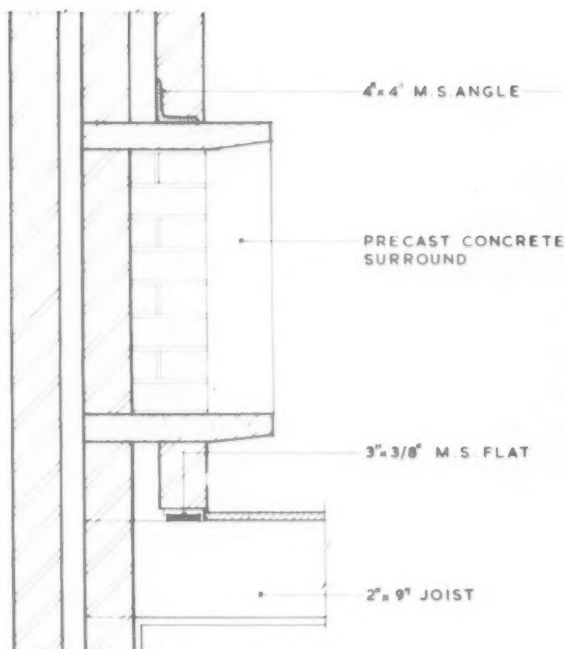
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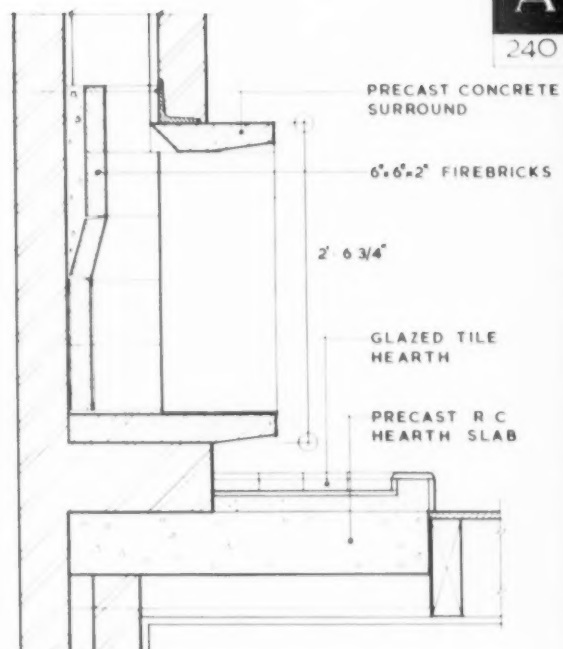
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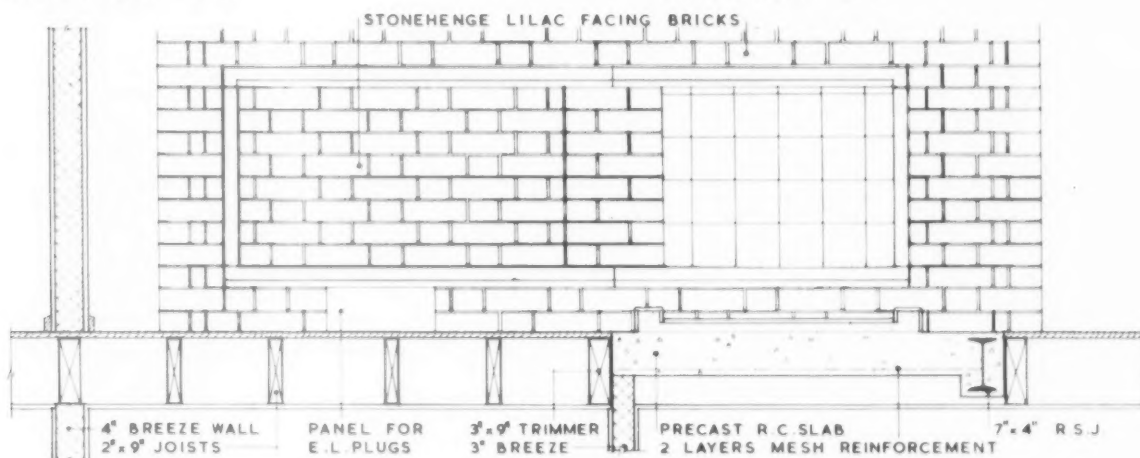
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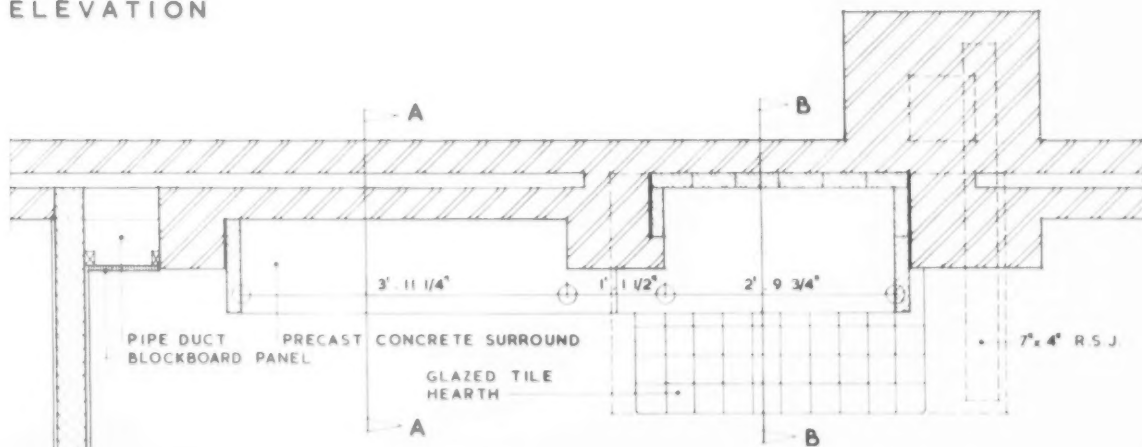
SECTION A-A



SECTION B-B



ELEVATION



PLAN

SCALE: 1/2" = 1' 0"

SECTIONS: 3/4" = 1' 0"



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Maintenance of Churches

LIKE all property owners the Churches are faced with the constant maintenance of the fabric of their buildings. There is no doubt that, at least in the past, if not so much during recent years, very inadequate attention has been given by the churches to their buildings and, in particular, by the Church of England who own so very many properties which are very old and are also in the class of "ancient monuments."

The expense involved in putting buildings into repair periodically has, I believe, been quite unnecessarily greater than it need have been if the necessary small amounts of maintenance had been carried out sufficiently early, as these would have confined the damage due to minor defects instead of allowing the damage to accumulate and grow very considerably worse. It seems that, by and large, the responsibility for seeing that the small defects are quickly put right has been in the hands of the local clergy, churchwardens and the congregations themselves, but unfortunately, only a few have had, or have had available, sufficient technical knowledge and experience to take the proper action immediately the small defects have appeared.

During the recent meeting of the Church Assembly the matter of regular inspections of churches to keep them in good repair was discussed. It seems that there was a motion to give approval to a measure which would empower archdeacons to ensure that churches are inspected by architects at least once in every five years. This seems to be a move in a very good direction, but one wonders if the frequency suggested is adequate as a very great deal of damage can occur through a relatively small defect not being remedied within two or three years. It was rather surprising to find at the Church Assembly that there was some opposition to this proposal, and one fears that the opposition was probably on account of the cost of the inspections.

One of the supporters of the scheme pointed out that the churches hoped, in the near future, to have put their buildings into a good state of repair, and it was therefore necessary to see that this condition was maintained. Further, he suggested that an adequate inspection should not normally cost more than £25, and with this expenditure money would in fact be saved due to the repairs being effected before too great damage had been caused. One of the objectors argued that the measure introduces coercive powers and might adversely affect the relations between archdeacons and Church Councils. The Bishop of Norwich suggested that as in his diocese there were over 700 ancient churches, and if they were to be inspected every five years, there would not be sufficient architects able

and willing to undertake a work of that size; the substance of this statement seems very doubtful. The Archbishop of Canterbury very wisely pointed out that the Church had to deal with this problem as a matter of honour and obligation to the Nation.

Such a measure is of very great importance to architects, as the maintenance of churches provides many private architects with a proportion of their income; none the less, one wonders whether it might not be possible to achieve the regular and adequate inspection and maintenance of churches on a somewhat different basis. It is a practice of many large industrial organizations and local authorities owning large numbers of buildings to maintain architects' departments whose function it is to see that the buildings of the organizations are kept in a proper condition; these departments frequently depend for their inspections and general maintenance on the services of skilled surveyors and clerks of works, who call on the services of the departmental architects only when there is definite trouble or major maintenance work to be carried out. This idea leads one to wonder whether the churches should not set up complete regional building maintenance offices under the jurisdiction of the diocesan architects, with staffs of full-time employees able to accumulate special knowledge and experience of the particular type of work concerned. Moreover, it might even be worth while considering taking a further step and having diocesan building departments staffed with craftsmen having suitable and special skill applicable to the type of work so often necessary which is not, at least nowadays, so readily available except from a few firms specializing in the maintenance and restoration of old woodwork and stonework. The degree of craftsmanship so often called for constitutes, unfortunately, a relatively small demand in other building spheres.

The inspection and the maintenance of church buildings, especially the really old ones, undoubtedly calls for very specialized knowledge, which is difficult to obtain and retain unless those employed can expect a reasonably continuous flow of the same type of work.

The importance of early and proper maintenance does not seem to have been appreciated by either the clergy or their congregations as it should have been. It is regrettable how often one has seen instances where the renewal of quite a small piece of work would have saved very great expenditure at some later date; for example, the renewal of a short length of gutter or down-pipe costs very little but the ultimate damage which can be caused by allowing water to percolate continuously

down and through walls can, in a very short time, lead to most destructive and almost irreparable damage. Equally, a small roof defect can quickly cause the need to renew large areas of roofing, including even main trusses which rot where their ends adjoin masonry. It is regrettable also that, from time to time, one sees entire roofs of church buildings which have been wrecked by insect attack or fungal growth which, had the trouble been tackled at its early stages, could have been saved at a relatively small cost.

This question of maintenance brings to my mind also the need for architects to be more cautious with their use of timber in positions in which attack by insects and fungal growth might well occur. These forms of damage appear to have grown enormously in recent years, and it would seem well worth giving very careful thought to the need, for the relatively small expenditure, for preserving timber when it is first installed. In the case of replacement of timber where this has become necessary due to either of these causes, it is, in my belief, of paramount importance that all the replacement timber should be adequately treated. Some guidance, although possibly somewhat incomplete, is given in the recently published Code of Practice CP.112.100, "Preservation of timber," and, in my opinion, when using this Code one should assume that church buildings will have to endure for a very long time and that they are seldom heated, and thus kept dry, as well as many other types of building.

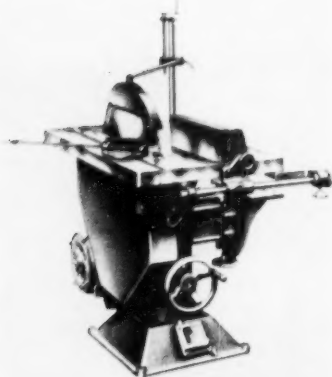
Timber has become costly in itself, and any labour applied to it can be thrown away very quickly if adequate preservation precautions are not taken. For example, I saw recently the gates of a church, which had fallen into disrepair, being replaced by a new set; no precautions whatsoever were being taken to preserve either the gates or the gate posts, and as these had involved a very considerable expenditure of labour and material it seemed foolish not to have spent the very small additional amount of money, which preservation would have involved, as this would undoubtedly have extended the life and therefore spread the cost over many times the probable life of the unpreserved new work.

It is to be hoped, therefore, that, if in the future adequate steps are being taken to maintain our church buildings properly, equal care and attention will be given to taking such precautions as will reduce to a minimum the maintenance of any new buildings the church is able to erect. It is to be hoped also that the same care and attention will be given not only to the churches themselves but also to associated buildings, such as church halls.

DUTCH UNCLE

MOSAICS

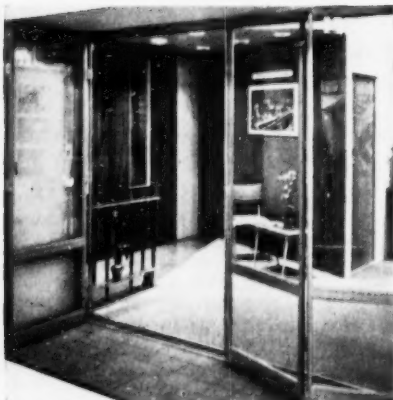
PLANT WOODWORKING MACHINERY E1/7



Four turntable-base models have now been added to the existing range of seven "Besco" Circular Sawbenches, made by F. J. Edwards Ltd., 359-361 Euston Road, London, N.W.1. At the same time the company have reduced all prices in the range. The full range, each of which is capable not only of high-performance sawing but also of boring, mortising, sawing, rebating, moulding, grooving, and even planing up to 3in, comprises models with saw diameters of 12in, 14in, 16in, 18in, 20in, 22in and 24in.

All these machines are normally supplied with electrical equipment for 400/440/3,500 current, and are available for immediate delivery.

The illustration shows the turntable base model, C4.



STRUCTURE DOORS A11/6

The Esavian Aluminium Folding Window Type 1368. The features of this window are clean lines, concealed fittings, and as far as possible draught- and weather-proof. To achieve this combination Esavian designers have used a high corrosion-resistant aluminium alloy for all the parts of the window except, of course, the actual fittings. The feature of Esavian Door practice is the use of the sliding mullion, and this is retained in the window shown above. The interlocking stiles and mullion give a double rebated effect and the movement fittings, top and bottom guide wheels, are completely concealed.

The window is being marketed in a standard size for opening 9ft x 7ft.

Details and prices can be obtained by writing to Esavian Limited, Esavian Works, Stevenage, Hertfordshire.

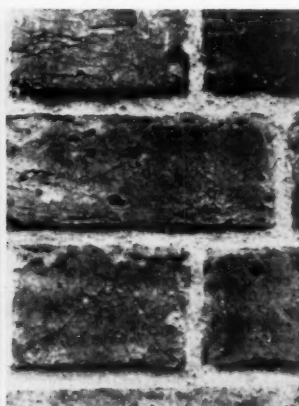


FITTINGS REFRIGERATOR C1/9

A self-contained refrigerator model M.151 designed to be built-in, made by Electrolux Ltd., 153-5 Regent Street, London, W.1.

Dimensions: Height 2ft 7½in, width 1ft 9in and depth 1ft 8 5/16in. Weight, about 100lb, it consumes 1.8 units of electricity and 0.14 therms of gas a day. Internal Volume in 1½ cu ft with 3½ sq ft of shelf space.

Two methods of building-in are possible, one completely flush, the other projecting ½in with its side flanges overlapping the side of the recess.



FINISHES WALL- PAPER D4/10

Two wall-papers from a new range by A. Sanderson & Sons, 53 Berners Street London. Left: 93166, a grey green and blue figured marble on a black background. Right: 93173, a full-size brickwork pattern in "photograph" grey.

INDUSTRIAL NOTES

● The Pre-Stressed Concrete Co., Ltd., have changed their address to: 171, Victoria Street, London, S.W.1. Tel.: Tate Gallery 8161 (4 lines).

● Advent of holidays in Scotland in July at most of the brickworks created a problem for users, many of whom worked through the period. Result was an intensified demand for bricks coming on top of the normal intense demand—creating a situation which just could not be handled. There has been no let-up in the demand for bricks in Scotland, and despite the steady and sustained efforts of the industry—which cannot be too highly praised—users are still clamouring. Present indications do not suggest that this picture can alter to any extent in the coming six months the more so since works will start with arrears of demand to make good.

Mechanization is being developed to the maximum extent by many works in an effort to meet this problem. The policy evident now is to wrest the last brick from existing machinery by diverting all labour off essential but unproductive work which can be done by conveyors. The labour so released is diverted to work which does definitely expand production, not so much by adding new plant but by giving labour to make the best use of what plant there is. The shortage of good brickwork labour still exists in most areas and this suggests that increasing use will require to be made of mechanical aids.

● The Minister of Materials has made the Timber (Control) Order, 1953. This is a consolidating measure which supercedes the Timber (Control) Order, 1951, as amended by the Timber (Control) (Amendment) Order, 1952, and incorporates the provisions of the Open General Licences issued under the superseded Order. The making of a new Order at this time does not indicate any change in current policy on the control of timber, or prejudice the outcome of the review now being made by the Government of the future of softwood licensing. The new Order makes only one minor change in the existing arrangements for control over timber, in that licences are no longer required if round softwood of not more than three inches butt diameter is split before being used. The Order also clarifies the form of records which must be kept by traders. The Timber (Control) Order, 1953, S.I. 1953 No. 1105 comes into operation on 30th July, 1953, and copies may be obtained from Her Majesty's Stationery Office, or through any bookseller from 22nd July, price 4d.

● Thorn Electrical Industries announce the opening of a Trade Counter at 39/45, St. Pancras Way, N.W.1. Stocks of Atlas tungsten filament lamps and fittings, fluorescent tubes, fittings, control gear and accessories are available against customers' immediate orders.

● The plant division of Messrs. Chamberlain Industries, Ltd., of Staffa Road, Leyton, London, E.10, report that they have now been appointed agents covering London and the Home Counties for Messrs. Dixon Hawkesworth, Limited, manufacturers of the Dixon range of rollers.

Messrs. Chamberlain Industries, Ltd., can demonstrate these and other items of contractors' plant at their Leyton works.

CURRENT MEASURED RATES (LONDON)

These apply to new work of normal character and some size. The rates are for time and materials only, and carry 10 per cent in excess, so the appropriate essential on-costs should be added. The basis cost of material used in the calculation of these prices is taken from the foregoing tables which carried up to the 1st of July, 1953.

[COPYRIGHT]

ESSENTIAL ON-COSTS

Fees payable to L.C.C. for District Surveyor:	
For new buildings of ordinary construction exceeding 5,000 cubic feet, for every 1,000 feet or part of same up to 1,000,000 cubic feet 1/6,	£1/10/-
together with an additional sum of £1/10/-	at + 1/6
After which allow per 1,000 do.	at + 9d.
For alterations and additions:	
When £100 the sum of £2/10/-, plus 12/6 for every £100 or part of same, up to £1,000	£2/10/- at + 12/6 per 100
When over £1,000 the sum of £8/2/6, and for every £100 or part of same beyond 3/-	£8/2/6 at + 3/- per 100
Public buildings: Fees as above but plus 50%	+ 50%
Fees in respect of means of escape in case of fire are 1/5th of the above or £2 if greater or in the case of a one-storey building £1	1/5th
Steel framed or r.c. buildings double	+ 2

Allowance to cover National Insurances, Holidays with Pay and Public Holidays, Welfare, Third Party Risk, Travelling and Guaranteed Week is made in the rates attached to the items.

Allow for Fire Insurance do.	1/4%
Allow for Water for use on the works and apparatus do.	1/4%
Allow for hoarding, or similar licences in City of London say £10 Do. under Borough Councils per ex month.	say 2/6
Allow for Office, Fire, Attendance on C. of W. etc., p. week say £1	

Supervision, etc. assessment Contract value	
£4,000 £6,000 £12,000 £24,000 £50,000	
Cost of admin. .. 6% 5% 5% 4 1/2% 4 1/2%	
Agent or foreman (each) .. 5% 4 1/2% 3 1/2% 2 1/2% 1 1/2%	
Timekeeper or Watchman (each) .. 2 1/2% 2 1/2% 1 1/2% 1% 1/2%	

SPOT ITEMS AND DEMOLITION, ETC.	Per foot run
Hoarding erected and removed	16/-
Planked gangway with handrail, etc. do. ..	8/6
Proper gantry do.	64/-
Sleeper roadways	13/6
Needling, strutting and shoring including all labours and use and waste in erection and removal ..	16/-
Breaking up and removing hard masses of concrete or brickwork, etc., found in foundations ..	54/-

ALTERATION-DEMOLITION—	1	1 1/2	2
Brick Brick Brick Per yard			
Cutting out cement concrete or brickwork in small quantities ..	1/2	2/2	3/-
Do. if either in very small quantities or reinforced ..	1/10	3/6	5/-
Debris into baskets and removed from inside to outside of bldg. ..	3 1/2d.	6d.	7 1/2d.

SCAFFOLDING	Period—
Per Yard superficial	1 month 3 months 5 months
Putlog type—4' 6" lift	3/8 5/8 7/6
Do. —6' 0" do.	2/11 4/6 6/1
Independent type—4' 6" lift	4/10 7/9 11/-
Do. —6' 0" do.	3/9 6/- 8/1

EXCAVATION	Common	Loam	Stiff	Hard
Per Yard Cube. By Hand Soil and Clay Clay Gravel				
Reduce levels	4/6	5/-	6/3	7/7
Surface trench	7/10	9/6	12/6	13/4
Barrow 25 yds.	2/4	3/1	3/6	2/4
Fill and ram	4/1	4/7	5/-	4/10
Load and cart	13/6	13/11	14/5	13/8
By machine				
Bulk dig and load	3/3	3/8	4/-	4/-
Lorry standing while loading and 5 miles travel to tip ..	5/2	5/9	7/-	6/5
1 extra mile to tip	7d.	8d.	8 1/2d.	8d.

CONCRETE	1 1/2in Ballast Aggregate	Per yard cube
1 : 3 : 6 Cement concrete in foundations ..		66/6
Do. around grillages		68/6

REINFORCED CONCRETE	1 : 2 : 4—1in. concrete, worked around reinforcement, between formwork in the following (at various levels):—	Per cubic
Foundations and surface beds		74/6
Walls, 12ins thick or more		79/6

Sectional inches.	Lintols and beams.	Columns and casings.	Braces and projections.
Up to 36	3/11	4/2	4/4
36 to 72	3/8	4/-	3/9
72 to 144	3/6	3/7	3/9
over 144	3/4	3/6	3/8
Walls 6ins thick			15/-
Do. 9ins thick			21/6
Suspended floors average 6ins thick ..			15/10

REINFORCING RODS (round) bent and placed—	Per cwt	1in	1 1/2in	2in	3in
In floors and beams	68/-	63/-	59/-	53/-	
In walls	74/-	68/-	62/-	56/-	
In columns	80/-	73/-	67/-	60/-	

FORMWORK and Supports (4 times use)—	Floor soffits	Beams.	Walls.	Columns.
17/- per Yard.	2/4	2/1	2/1	per super foot.

BRICKWORK

BRICKWORK per YARD superficial reduced to ONE BRICK in thickness (scaffold to add)—	In 1 : 3 cement mortar.
Flettons or other similar at 108/- per 1,000 ..	36/-
Mild Stocks or do., at 215/6 per 1,000 ..	49/3
Second Stocks or do., at 246/6 per 1,000 ..	52/3
Southwater engineering or similar bricks, at 318/- per 1,000 ..	64/-
Blue Staffordshire wire cut at 451/6 per 1,000 ..	78/2
Deduct if 1 : 1 : 6 Cement-Lime mortar is used in lieu of 1 : 3 Portland Cement mortar ..	2d.
Add if brickwork commences above ground level ..	3/3
Do. if in backing to masonry including cutting and waste for bonding	2/8
Do. If circular-on-plan	6/6
Do. If in underpinning	6/6

BRICKWORK IN THICKNESS NOT REDUCED—

Per yard superficial.	Brick, on edge walls.	Half-Brick walls.	1 Brick 11" Hollow finished with 2" fair both cavity and sides.	G.I. tics.
In Flettons or similar	15/6	19/7	36/-	41/6
In second stocks or do.	21/2	27/11	52/3	57/9
Add: for pointing as work proceeds, per side	1/4	1/4	1/4	1/4
Thickening to old walls, including cutting, toothing and bonding to same an average total thickness of 1 1/2 brick	48/-	60/3	Per yard super.	
Do. all as last but an average total thickness of 1 1/2 bricks	66/-	86/5	do.	

WALLS BUILT IN SUPERIOR BRICKS—

In 1 : 3 Cement mortar, fair faced and pointed on both sides as the work proceeds:—	Half-Brick	One Brick
In first quality Stocks at 262/6	31/7	56/7
In red facings at 280/-	31/6	56/7
In bluepressed facings at 494/-	46/9	86/9

GENERAL AND SUNDRY—

Cut tooth and bond new brickwork to old	4/- per ft
Damp proof course, double slate, horizontal ..	2/9 super.
Do., as last, but vertical	3/6 do.
Do., bitumen, Hessian base, do.	1/6 do.
Frames, bed and point in cement mortar, one side 4d. per ft. run	
Window board of 6" x 6" x 1/2" rounded on edge quarry tiles, bedded, pointed, cut and fitted ..	2/9 do.
Terra cotta air bricks built in and 9" x 6" 9" x 9" pointed, including flue	4/9 8/6 each.
Chimney pots, plain red, set and flunched in cement mortar	1ft high 2ft high 18/3 each
Metal windows, assembled, hoisted and fixed, lugs cut and pinned and frames bedded and pointed one side in cement mortar	Up to 5ft super. 5ft to 10ft super.
10ft to 20ft super.	9/6 12/- each
20ft to 40ft super.	18/6 33/- each
Leaving holes through walls for Small pipes pipes and afterwards making good ..	3d. per in in depth
Cutting do., and afterwards do.	9 1/2d. do.
Cut mortices in brickwork or concrete for bolts or dowels and run in with cement grout in depth, each	1/1 per in
Holdfasts of stout hoop iron bent holed and screwed to frame and built in ..	1/1 each

MEASURED RATES—Continued**BRICKWORK—Continued****FACING—**

Extra only over common brickwork (108/- per 1,000) for facing with superior bricks in *Flemish bond* and pointing as the work proceeds.

Rustic Flettons (133/-)	3/1½ per yard super.
White (190/-)	7/8 do.
First Stocks (262/6)	12/7 do.
Reds (280/-)	13/10 do.
Blue pressed (494/-)	30/- do.

If built in English bond, Add 10% to above.

If do. half-brick stretcher bond, Less 25% off above.

COPING—

All labour and material in forming brick-on-edge coping with two courses of roofing tiles under and cement weather fillets on both sides, built in cement and pointed as the work proceeds.

Per foot run	9" thick	14" thick
In picked Flettons	6/-	8/-
In first quality Stocks	7/4	10/8
In red facings	7/3	10/6
Plumbing angles	2d. per foot run	
Fair cutting	9½d. do.	
Fair raking cutting	1/4 do.	
Fair circular cutting	1/4 do.	
Fair squint or birdsmouth	1/7 do.	

ARCHES

Extra over Fletton brickwork for forming window head with red facing bricks set on end and with 4½" soffits and pointing

foot run

Do. for rubbed and gauged flat arch in red rubbers set in putty with fine joints

3/-
foot super
16/-

PARTITIONS

	Per yard super—
(over 100 Yards)	2in 2½in 3in
Concrete slab partitions in cement mortar	9/4 10/6 11/10
Hollow clay do.	11/6 12/4 13/6
Cutting and bonding at angles, intersections and ends	4d. foot run.

PAVING

	1in	1½in	1½in	
Grano trowelled gauged 5:2	7/6	9/-	10/6	yard super
1×5in skirting, square top and cove bottom			2/6	foot run
½in×6in red quarry tile paving			25/6	yard super
½in×6in do. skirting			1/8	foot run
Jointless flooring, ½in thick			20/-	yard super

ASPHALTE (normal conditions and fair quantity)

	B.S.	
½in pitch mastic floor in one coat on felt underlay on prepared concrete base	1450/48	1375/47
Per yard super	Black 11/3	Brown 12/6 Red 13/6
	Unit	Mastic B.S.988 Natural Rock B.S.S. 1162/44
½in in two thicknesses on felt underlay on prepared concrete base	yard super	14/9 20/-
Ditto in narrow widths	foot super	1/10 2/6
½in skirting 6in high, angle fillet at bottom splayed and turned-in at top	foot run	2/2 2/6
External angles	each	5d. 5d.
Internal ditto	each	8½d. 8½d.
Tanking or Damp Course	B.S.1097/43	B.S.1418/47
Vertical in two thicknesses	yard super	19/- 25/-
½in horizontal ditto	yard super	12/9 19/6
Vertical in three thicknesses	yard super	24/3 33/-
1½in horizontal ditto	yard super	18/8 29/6
Labour rounded external angle	per foot run	4½d. 4½d.
Ditto internal angle fillet	per foot run	8d. 8d.
Ditto double ditto	per foot run	1/3 1/3
Collars to small pipes	each	3/- 3/6
Ditto to large pipes	each	5/- 6/-

DRAINAGE

Per lineal yard	1 foot in depth	4/1
Excavate trench, and plank and strut to sides, consolidate bottom to fall, return fill and ram earth after drain is laid, and load and remove surplus.	2 do.	7/-
In ordinary ground—moderately firm.	3 do.	17/2
	4 do.	22/9
	5 do.	28/4
	6 do.	36/-
	7 do.	43/10
	8 do.	55/6
	9 do.	64/6
	10 do.	71/6
	11 do.	89/-
	12 do.	100/-

Portland cement (1:6)	Per yard run
concrete bed under drain	4in. 6in. 9in.
pipes and benching up on 18in wide	20in wide 23in wide
both sides—6" thick	5/6 6/5 8/-

SALT GLAZED SANITARY DRAIN PIPES

and lay and joint with Yarn and Cement Mortar in trench.

Quality	Quantity	Per foot run
		4in 6in 9in
" Best "	2 Tons or more	2/5 3/6 5/9
	over 100 pieces	2/8 4/- 6/6
	under 100 ditto	2/9 4/2 7/-
" Best Tested "	2 Tons or more	3/- 4/4 7/4
	over 100 pieces	3/6 5/3 8/9
	under 100 ditto	3/9 5/6 9/3
" British Standard "	2 Tons or more	2/7 3/10 6/3
	over 100 pieces	3/- 4/4 7/4
	under 100 ditto	3/2 4/7 7/8
" British Standard Tested "	2 Tons or more	3/2 4/8 7/9
	over 100 pieces	4/- 5/11 10/2
	under 100 ditto	4/1 6/2 10/7
Extra for bends " Best "	Contained in 2 Ton lots.	3/9 5/6 15/5
Extra for junction " Best "	ditto	5/10 8/6 25/1
	—4in on 4in, 6in on 6in—9in on 9in)	

IRON DRAIN PIPES—

Heavy cast iron socketed and laying and jointing in molten lead—	Per foot run
	4in 6in
In main runs	9/8 14/6
In branches	10/2 14/7
	each
Extra over last for bends and extra joint	32/- 54/6
Do. on do. for junctions and extra joint	44/- 78/-
Cast iron gully with 10½in. inlet and 4in outlet, composed of hooper and trap, and 9in extension piece and 10½in grating, and jointing all together, and jointing to drain and surrounding in concrete	117/- —
Do. rain water shoe with vertical inlet and inspection cover, and joint up and embed	54/- 107/-

MANHOLE SUNDRIES—

	4in	6in
Salt glazed straight half-round main channels	each 5/-	7/-
Do. curved	do. 10/6	15/-
Do. three-quarter section splayed channel bends (Barrons or similar)	do. 13/9	19/10
Heavy manhole steps galvanized	do. 10/-	—
Fix only manhole covers	do. 8/6	—
4in Mica flap, brass faced, f.a.i. valves and fix with molten lead joint	do. 34/-	—

ROOFER**CORRUGATED ASBESTOS SHEETS**

P.C. 6/1½ per super yard, including side and end laps and fixing to wood	122/- per square
Eaves filler pieces	1/8 foot run
Adjustable ridge	3/2 do.
Barge boards	2/6 do.
Plain roofing tiles, machine made, sand faced, 4in gauge nailed every 4th course with 1½in galvanized nails, to battens (measured separately)	203/- do.
Extra over last for top edge or abutment cutting	1/- do.
Do. for double course at eaves	1/10 do.
Do. for verges, undercloak, bed and point	2/6 do.
Do. Valley tiles including cutting and waste on both sides	9/- do.
Do. Bonnet hips and do. bed and point	10/- do.
Half-round ridge and bed and point	2/6 do.
Fixing soakers	1/3 dozen

Bituminous felt roofing in two layers, laid breaking joint and bedded with hot mastic and finished with fine dry grit

Do. but in one layer only	8/6 yard 6/4 super.
WELSH SLATING—	Per square
12"×10" 18"×10" 20"×10"	
3in lap, 2 zinc nails to each slate	249/- 284/- 328/-

Additional labours—

	Per foot lineal
At tops, verges and abutments—straight	1/3 1/5 1/7½
Do. —raking	1/11 2/11 3/4
At hips and valleys (each side)	1/11 2/11 3/4
At eaves, double course	2/6 2/10 3/3
Do. to falls	3/9 4/3 4/10



TORQUAY MUNICIPAL HOUSING: MARLDON ROAD ESTATE

HOPE'S

GALVANIZED WINDOWS AND STEEL DOOR FRAMES



HENRY HOPE & SONS LTD., BIRMINGHAM & 17 BERNERS ST., LONDON, W.1

Gibson CLOCKS STAND THE TEST OF TIME



No. 304

Designed for INDUSTRY AND COMMERCE, Gibson Clocks are correct in factories, workshops, mills, offices or schools—in fact wherever time indication is required.

A Master Clock impulse system operating any number of Slave Clocks, and independent of the mains, ensures perfect reliability.

For those with a single office or showroom a battery-wound clock will give perfect service—and no winding, wiring or maintenance is necessary, except to change the 4.5 volt torch battery about every twelve months.

Clocks for special purposes made up to client's specification.

Master Clocks • Slave Clocks • Battery Wound Clocks
Synchronous Clocks • Time Recorders • Job Costers

Illustrated Brochure available on request

Baume & Co. Ltd

1, Hatton Garden, London, E.C.1. & La Chaux-de-Fonds.
Established 1834

BAUME
WATCHES

Longines
WATCHES

HELLER
TIMERS

Gibson
CLOCKS

weather control



44 lb. of "PLASTEX" will cover 100 sq. ft.
1/4 inch thick

Although scientists have achieved some success in producing rain, there is no method of preventing it raining—which taken by and large is probably all for the best.

Whatever the future may bring, at the present time we can ensure 100% protection against the weather.

For weatherproofing and waterproofing buildings, PLASTEX is invaluable. It is not affected by temperature, will not wash away, and will remain permanently in position in either hot or cold weather.

PLASTEX will stick to any surface, and is used just as supplied without applying heat. It can be applied with trowel or putty knife, from 1/4 inch to 1 inch thick, according to requirements . . . A sure protection against rain and snow-water.

A READY FOR USE PLASTIC COMPOUND FOR

- REPAIRING ROOFS OF ALL TYPES
- STOPPING LEAKS
- COVERING NEW ROOFS
- RE-COVERING FELT ROOFS
- REPAIRING & WATERPROOFING ALL TYPES OF BRICKWORK
- WATERPROOFING CONSTRUCTIONS BELOW GROUND LEVEL
- STOPPING CRACKS IN BRICKWORK, WOODWORK & METALWORK
- WATERPROOFING JOINTS ROUND SKYLIGHTS, WINDOW SASHES & REPAIRING GUTTERS



DUSSEK BROTHERS & CO., LTD.

THAMES ROAD, CRAYFORD, KENT.

Telephone: Bexleyheath 2000 (5 lines)

MEASURED RATES—Continued

FLOORS AND FLATS

Hollow tile in situ or precast units hoisted, bedded and fixed— Superimposed load in lb per foot super.			
	12 feet	Span	16 feet
Per yard super.	50 .. 41/6		46/-
	100 .. 42/6		48/6
	150 .. 45/6		51/6
20lb has been allowed to cover dead load in surface finish.			
Fair edge to slabs	8d.	per foot run	
Splay cutting and waste	1/7 do.		

CARPENTER AND JOINER

SOFTWOOD CARCASSING—

Labour, materials, waste nails, Plates			
hoisting and fixing	17/8	18/6	20/-
	Joists	Rafters	Trusses
per foot cube—			
FLOORING—	Per square—	1/2 in	1 in
Rough boarding	122/-	152/-	186/-
Softwood batten flooring, straight joints, splayed headings	127/-	158/-	195/-
Do. grooved and tongued	152/1	187/7	230/10
SKIRTING—	Per foot superficial—	1/2 in	1 in
Wrot softwood moulded skirting with grounds and backings plugged	3/2	3/9	4/3
Mitres to do.	3d. per sectional inch.		
Fitted ends	2d. do.		

SASHES, Fanlights, casements, borrowed lights, etc.—

Per foot super—		Without bars	With bars (2ft sup. in each square)
2in softwood rebated, moulded and fixed	2/9	4/7	
Add if fitted with beads	6d.	1/6	
Add if hanging on butts	2/- each		

WINDOWS, hung on lines—

Softwood casement frames, 1in inner and outer linings, 1 1/2 in pulley stiles, 2in sashes, oak sill.			
Overall size of frames—			
Per foot super.	6ft	21ft	32ft
Window as described	16/-	8/4	6/7
Add if sashes in squares, about 2 feet super in each	1/3	1/7	1/6
Extra for hanging sashes with lines, weights and axle pulleys	25/-	42/-	52/-

FINISHINGS TO OPENINGS—

Per foot super—			
Softwood linings, tongued at angles and tongued to frame including grounds and backings	3/2	3/6	4/3
Add if crosstongued	6d.	6d.	6d.
Softwood wrot rounded on front edge and with tongue at back window board including groove in sill and bearers	3/1	3/6	4/3
Add for ends to last notched, returned and rounded	11d.	1/-	1/1
Per foot run—	Sectional area in inches—		
Softwood wrot and fixed in bearers, backings, grounds, fillets, and similar	3 1/2 d.	6d.	8 1/2 d.
Add if in short lengths	2d.	2d.	2 1/2 d.
„ if plugged to brickwork	4d.	4d.	4d.
„ if framed as in legs and bearers	3d.	3d.	4d.
„ if rebated or grooved or beaded	1 1/2 d.	1 1/2 d.	1 1/2 d.
„ if chamfered or rounded edges	1 1/2 d.		
„ if moulded in architraves, capping, etc.	3d.		

DOOR FRAMES—

Per sectional inch—			
Softwood, wrot, rebated, rounded framed and fixed	1/10 1/2	2/3	2/8 1/2

DOORS—Per foot super.

Number of panels—			
2in. Softwood, square framed and flat panels, both sides, on butts	5/-	6/-	6/6
1 1/2 in do.	4/2	5/-	5/6
Add for each side moulded	4d.	5d.	6d.
Add for do. flush panelled	8d.	8d.	8d.

per foot super—			
In shelves, table tops, wrot and fixed	2/2	2/5	2/10
Do. in divisions and ends framed	2/4	2/7	3/-
Add if crosstongued	6d.	6d.	6d.
Add if buttoned	6d.	6d.	6d.

SUNDRIES—Per foot run			
	In short lengths	In long lengths	Add for cups & screws
Glazing beads, mitred around and fixed with brads	6d.	4d.	2d.
Rounded heel or hollow		4d.	
Tongued and grooved angle		6d.	
Glue blocking		6d.	
Mitres	3d.	per sectional inch.	
Fitted ends	2d.	do.	

STAIRCASE—

1 1/2 in Softwood treads with moulded nosings. 1in risers tongued both edges and glued, blocked and bracketed on and including two fir framed			
carriages			4/9
Do. but in winders			5/9
1 1/2 in. crosstongued landing on framed carriages			4/9
2in moulded string			4/6
2in do. ramped			10/-
Ends framed to newel			8/6 each
Tongued and mitred angles			4/6 do.
Tongued heading joints			4/6 do.
Ends of treads and risers housed to string			3/- do.
Extra for curtail ends to steps, glued up and veneered riser and solid blocking			90/- do.

Balusters about 2ft 9in long, square and framed each end			
3 1/2 in x 3 1/2 in square newel, framed	3/-	3/6	4/-
African mahogany moulded 3in. x 2in. hand-rail. (Joints below)		7/6	do.
Do. ramped 18in. girth (do.)		45/-	each
Do. wreathed do. (do.)		140/-	each
Joint or framed ends		10/-	each

FIXING ONLY IRONMONGERY			
	To deal	To hardwood	
Barrel bolts	1/6	2/2	each
Flush bolts	3/6	4/3	do.
Sash fasteners	2/-	2/6	do.
Rim locks and furniture	4/9	5/10	do.
Mortice locks and do.	9/6	14/6	do.
Cupboard locks	2/6	3/-	do.
Casement fasteners	2/-	2/6	do.
Do. stays	2/-	2/6	do.
Grip handles	2/4	3/-	do.
Spring catches	2/-	2/6	do.
Cabin hooks	1/7	2/2	do.
Floor springs including oil	42/-	51/-	do.
Overhead springs	11/9	14/-	do.
Springhinges	9/6	11/2	do.

SMITH AND FOUNDER

Basis framed steel joists and hoist and fix		68/6	per cwt.
Do. but in compound girders		71/-	do.
Do. but in stanchions		78/6	do.
Trusses		93/-	do.
Additional cost per cwt. over basic sections for following R.S.J.s.			
9in x 7in	3 1/2 d per cwt.	6in x 3in	4 1/2 d per cwt.
5in x 3in, 10in x 8in, 12in x 8in, 14in x 8in, 16in x 8in, 18in x 6in, 18in x 7in, 20in x 6 1/2 in, 20in x 7 1/2 in		6 1/2 d.	do.
5in x 2 1/2 in, 22in x 7in		10d.	do.
4in x 3in, 24in x 7 1/2 in		1/1 1/2	do.
3in x 3in	1/4 1/2 cwt.	4 1/2 in x 1 1/2 in	2/9
3in x 1 1/2 in			3/10 1/2
Bolts and nuts, fitted			140/-
Forged straps			100/-
Wrot iron balustrade			124/-

RAINWATER GOODS—

Round cast-iron pipe with socketed joints caulked with red lead and tow and fixing with pipe nails and gas barrel distance			
pieces to plugs in brickwork		3/3	3/9
Extra for shoes		4/9	6/-
Do. junctions		7/-	9/-
Do. bends		5/6	7/-

RAINWATER GUTTERS

Per foot run—4in			
Half round C.I. gutters jointed in red lead and bolted and fixed on iron brackets	3/1	3/9	4/8
Ogee do. All as last	3/5	3/11	4/11
Extra for stop ends	2/10	3/6	3/9
Do. angles or outlets	5/-	6/4	7/6

MEASURED RATES—Continued**PLUMBER**

EXTERNAL— 4lb Milled Sheet lead per cwt.	Soakers 169/-	Flats 200/-	Flashings 209/-
Per foot run	1/2in	1in	1 1/2in
Lead main pipe	5/6	7/6	9/11
Ditto service ditto	5/3	6/9	8/6
Ditto waste ditto	3/10	4/6	5/10
Bends each	—	—	1/9
Solder joints	7/8	9/6	11/3
Union and joints	12/10	16/5	21/1
Stop valve and ditto	28/11	37/7	51/10
Bib valve and ditto	20/8	28/-	—
Ball valve and ditto	22/6	31/7	49/5
Sleeve and ditto	—	—	21/3

COPPER TUBES

	1/2in	3/4in	1in	1 1/4in	1 1/2in	2in
Tubes per foot run	2/6	3/-	4/-	4/8	5/5	8/1
Couplings: straight each	—	3/2	4/-	5/8	7/4	9/10
Do. Bends each	6/3	7/9	10/10	14/2	21/4	30/8
Do. Tees	7/4	8/5	12/6	17/-	22/11	33/4
Do. Cistern	4/1	5/6	7/2	9/2	12/9	16/9
Stop cocks	23/10	33/6	52/9	93/-	138/-	213/-

BLACK TUBING (Class C) fixed with pipe brackets	1/2in	3/4in	1in	1 1/4in	1 1/2in	2in
Tubes, per foot run	1/9	2/1	2/7	3/3	3/10	5/1
Bends and fix, each	3/10	4/6	5/6	7/1	8/-	12/4
Tees and ditto	4/-	4/8	5/8	7/3	8/10	13/-
Fire bends	1/3	1/6	1/7	1/10	2/5	4/3

Coated iron (M) weight L.C.C. soil and waste fixed with nails and distance	2in	4in
Pieces and molten lead joints	4/6	6/8
Extra only for bends and joint	12/7	20/9
Do. junctions and joints	14/-	26/-
Do. cleaning doors	16/6	18/-
Domical wire guards	2/4	2/6

PLASTERER—	yard super
Lime and hair	5/4
Do.	6/9
Sirapite	3/6
Do.	6/11
Do.	8/10
Portland	4/1
Do.	6/11
Do.	4/5
Keenes	4/6
Dubbing	1/10
Metal lathing	5/4
6" x 6" x 1/2" Earthenware Plain Glazed Tiles, in fair quantity, white, and setting (on prepared screed)	36/6
Rounded edge. Extra over last	3 1/2d. per foot run
Angles in ditto	3 1/2d. each
Cutting and fitting. Around pipes or clips	1/- ditto
Narrow widths. 3" to 6" wide. Add 75% to plain surface.	
Ditto. 6" to 12" ditto. Add 40% to plain surface.	
Sundry labours per foot linear:—	
Quirk 2 1/2d. Arris 3 1/2d. Fair edge 2 1/2d. Rounded edge 4d.	
Flush bead 1/5.	
Mouldings—5d. per inch girth.	
Jointing new plastering to old 3d.	

POLISHING NEW WORK—	Foot super	Sashwork Foot run
Staining, bodying-in and French Polish	2/5	1/7
Staining and wax polishing on hardwood	1/1	9d.
OLD WORK—		
Cleaning down old work and repolish.	11d.	—
Stripping, preparing and repolishing.	2/8	1/10

INTERNAL PAINTING

With white lead base in common colours, with brushes.

	Knot stop prime	Prime and paint once	Prime and paint twice	Add for each extra coat
ON WOOD—				
General surfaces	2/4	4/7	6/4	1/8 Yard super

Running lengths not exceeding 3" wide	3 1/2d.	6 1/2d.	9d.	2 1/2d.	Yard run
Do. 3" to 6" wide	5d.	9 1/2d.	1/-	3 1/2d.	do.
Do. 6" to 9" wide	7 1/2d.	11 1/4	1/7	5d.	do.
Do. 9" to 12" wide	10 1/2d.	1/6	2/-	6 1/2d.	do.
Sash square each side	4/11	8/5	11/4	2/11	per doz.
Do. in large squares	7/1	12/-	16/2	3/10	do.
Opening edges	7d.	1/2	1/9	7d.	each
Casement frames each side	4 1/2d.	8 1/2d.	1/-	3d.	Yard run
Mullions or transoms, do.	6 1/2d.	11 1/2d.	1/3	4 1/2d.	do.
ON PLASTER—		One coat	Two coats	Three coats	
Paint on surfaces	2/4	4/4	6/-	Per Yard super	
Do. on mouldings	2/8	5/2	7/-	do.	
Do. on enrichment	4/6	8/6	11/-	do.	
ON STEEL—					
Paint on structural steel	2/-	3/9	5/3	do.	
Do. on roof trusses	3/3	6/4	8/9	do.	
Do. on metal windows measured over all on both sides, divided into squares	3/-	5/2	7/3	do.	
Do. divided into large squares	2/7	4/5	5/9	do.	
Do. divided into extra large squares	2/1	3/8	4/11	do.	
Do. on opening edges	9 1/2d.	1/5 1/2	1/11	each	
Do. on rain water pipe	7d.	1/3	1/8	Yard run	
Do. on do. gutter	1/-	2/1	2/10	do.	
Do. on small pipe	2 1/2d.	5 1/2d.	8d.	do.	

GLAZING (to New Work)

Polished Plate Glass ordinary substance (about 1/2in), glazing quality, in the following sizes, glazed complete—	Per foot super
In plates not exceeding 2 feet super in each	4/9
Do. 5 feet	5/7
Do. 45 feet	6/3
Do. 100 feet	6/8
Add extra price for glazing with screw beads or clips 3d. per foot super.	
Do. if glazing bedded in washleather or velvet 6d. per foot run.	

SHEET GLASS glazed, complete, per foot super, in new work:	24 oz	26 oz	32 oz
Ordinary quality clear glazed to wood with putty in areas of 100 feet super in the aggregate	1/9 1/2	1/11 1/2	2/2 1/2
Do. 200 feet do.	1/7 1/2	1/9 1/2	2/0 1/2
Do. 500 feet do.	1/6	1/8 1/2	1/11 1/2
Figured rolled and Cathedral, glazed to wood with putty in 100 foot super areas in aggregate. (White.) (1/2in.)			
	Per foot super		1/11 1/2
Do. in standard tints	do.		2/7 1/2
Fluted, glazed do.	do.		2/3 1/2
Reeded (narrow, broad, etc.) do.	do.		2/3 1/2
Reedlyte do.	do.		2/3 1/2
Spotlyte do.	do.		2/2 1/2
1/2in Rough cast do.	do.		2/2 1/2
1/2in Do. wired do.	do.		2/3 1/2
1/2in Georgian Rough Cast do.	do.		2/4
Add for glazing all as before but to steel to similar work as above, 2d. per superficial foot.			

PAINTER AND DECORATOR

DISTEMPERING—In common colours, put on with brushes—ON PREPARED SURFACE.

per yard super—	1 coat	2 coats	Add if required for (finish) (under-coat and finish)	Sealing coat	Stipp-ling
Ordinary distemper on flat surface of plaster	7 1/2d.	1/2	5d.	2d.	
Washable do. on do. of plaster	10 1/2d.	1/7	5d.	2d.	
Add if in margins, narrow widths or panels	30%	30%	20%	50%	
Add if on mouldings	50%	50%	45%	—	
Add if on enrichments	160%	160%	115%	—	

PAPERHANGING

Hanging only—	Per piece—	Lining	Pattern
On walls	6/-	7/2	
On Stairs	8/2	9/6	
On ceilings	7/2	8/4	

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

OPEN

BUILDING

BECKENHAM B.C. (a) House at Wellwood, Layhams Road, West Wickham. (b) Borough Engineer, Town Hall. (c) £2. (e) Sept. 7.

BERKSHIRE C.C. (a) 2 police houses at Lambourn. (b) County Architect, Wilton House, Parkside Road, Reading. (c) 2gns. (e) Aug. 13.

BOOTLE B.C. (a) Block of 3 shops with maisonettes and block of 2 shops with maisonettes, Storrix Lane site. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) Aug. 21.

BOURNEMOUTH B.C. (a) Block of 8 shops with maisonettes above, Leybourne Estate. (b) Borough Architect, Town Hall (Room 106). (c) 2gns. (e) Aug. 17.

CHADDERTON U.C. (a) Branch library at junction of Whitegate Lane and Broadway. (b) Engineer and Surveyor, Town Hall. (c) 2gns. (e) Aug. 15.

CUMBERLAND C.C. (a) Conversion of part of Egremont Clinic to provide chest clinic and X-ray facilities. (b) County Architect, 15, Portland Square, Carlisle. (e) Aug. 17.

DERBYSHIRE C.C. (a) Erection of garages (125ft x 26ft) at Clay Cross with concrete block walls and asbestos cement roof. (b) County Surveyor, County Offices, St. Mary's Gate, Derby. (c) 2gns. (e) Aug. 12.

DURHAM COUNTY POLICE AUTHORITY. (a) 1 pair of police houses with office, High Lanes Estate, Heworth. (b) Police Authority Architect, Court Lane. (e) Aug. 10.

EASINGTON R.C. (a) Public conveniences at Wordsworth Avenue, Wheatley Hill and The Market Place, Hartlepool Street, Thornley. (b) Engineer and Surveyor, Council Offices. (c) 1gn. (e) Aug. 11.

ELLESMERE PORT U.C. (a) Contract No. 150. 1 pair of pensioners' bungalows, Wilkinson Street North. (b) Engineer and Surveyor, Queen Street. (c) 1gn. (e) Aug. 25.

ESSEX C.C. (a) Huttled classrooms at Nevendon Craylands Secondary School, including construction of foundations, drainage, etc. (approx. value of contract £6,258). (b) County Architect, County Hall, Chelmsford. (d) Aug. 1.

ESSEX C.C. (a) Charlecote secondary school, Dagenham (approx. value of contract £189,000). (b) County Architect, County Hall, Chelmsford; with full details. (d) Aug. 8.

FELLING U.C. (a) House for park superintendent at Davidson Street. (b) Council's Surveyor, Council Buildings, Felling, Gateshead, 10. (c) 2gns. (e) Aug. 8.

LEEK R.C. (a) 12 houses at Rudyard. (b) Messrs. Edward Forshaw and Greaves, The Old White Hart, Trinity Street, Hanley, Stoke-on-Trent. (c) 2gns.

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.



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EDINBURGH, 2: 2 North West Circus Place. Tel. Edin 27998
BIRMINGHAM, 18: 63 Hockley Hill. Tel. Northern 1266

LIVERPOOL REGIONAL HOSPITAL BOARD. (a) Alterations and additions to operating theatres at Aintree Hospital, Longmoor Lane, Liverpool, 9. (b) Regional Architect, Premier Buildings, 88, Church Street, 2. (c) 2gns. (e) Aug. 27.

LOUTH R.C. (a) 12 houses at Holton-le-Clay; 20 houses at Tetney; 8 houses at North Thoresby. (b) Messrs. Wm. Saunders and Partners, 24, Castle Gate, Newark-on-Trent. (c) 3gns. (e) Aug. 24.

NEW HUNSTANTON U.C. (a) 12 aged persons' dwellings, Hill Street site extension. (b) E. Middleton, Central Chambers, 1, Norfolk Street, King's Lynn. (c) 2gns. (e) Aug. 14.

N. IRELAND—ENNISKILLEN B.C. (a) 6 houses, Fairview Lane, Enniskillen. (b) Town Clerk, Town Clerk's Office, Town Hall. (c) 3gns. (e) Aug. 20.

N. IRELAND — LONDONDERRY EDUCATION AUTHORITY. (a) School meals dining centre at Chapel Road. (b) A. T. Marshall, Princes Quay. (c) 5gns. to City Accountant's office, Guildhall, Londonderry. (e) Aug. 29.

NOTTINGHAM C.C. (a) Tea bar and conveniences at Broad Marsh. (b) City Engineer, Guildhall. (c) £2. (e) Aug. 19.

RUNCORN R.C. (a) 47 houses at Appleton, near Warrington, for Ministry of Supply (Atomic Energy Division), Risley, Warrington. (b) Engineer and Surveyor, Castle Park, Frodsham, via Warrington. (c) 2gns. cheque payable to Council. (e) Aug. 14.

SCOTLAND—EDINBURGH C.C. (a) Inch primary school No. 3 (separate trades). (b) City Architect's Office, City Chambers. (c) Aug. 12.

SLOUGH B.C. (a) (1) extension of existing garages and 4 sectional concrete garages including bases or (2) group of 3 and group of 4 sectional concrete garages including bases at the Stoke Poges Lane (East) Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) Aug. 17.

SWANSEA B.C. (a) Llansamlet domestic science centre, Llansamlet. (b) Borough Architect, Guildhall. (c) £2 payable to Corporation. (d) Aug. 7.

TONBRIDGE R.C. (a) 6 houses and 6 flats in 1 block at Ringden Avenue, Padlock Wood. (b) Engineer and Surveyor, 48, Pembury Road. (c) Aug. 10.

WEDNESFIELD U.C. (a) Council offices at Regal Field, Wednesfield. (b) Thos. A. Peacock, 29, Bolton Road. (c) 3gns. (e) Aug. 24.

WELLINGBOROUGH U.C. (a) 90 houses, Tower Estate, Finedon. (b) Engineer and Surveyor, Council Offices. (c) 2gns. (e) Aug. 24.

WELTON R.C. (a) (1) 50 houses with site works and (2) construction of roads and sewers, Dunholme. (b) Messrs. Wm. Saunders and Partners, 24, Castle Gate, Newark-on-Trent. (c) 3gns. (e) Aug. 20.

WIGAN B.C. (a) 2 blocks of 8 flats and 2 blocks of 4 shops and 4 flats at Logwood Avenue and Ridyard Street, Worsley Hall Estate. (b) Borough Engineer, Municipal Buildings, Library Street. (c) 2gns. (e) Aug. 24.



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WOLVERHAMPTON B.C. (a) 66 flats at Moseley Village, Willenhall Road. (b) Borough Engineer, Town Hall. (c) 3gns. (d) Aug. 14.

PLACED

Notes on contracts placed state locality and authority in bold type (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

LIVERPOOL CORPORATION. (1) Multi-storey flats. (2) Sparrow Hall, Fazackley. (3) R. Costain and Sons (Liverpool), Ltd., Barlows Lane, Liverpool 9. (4) £237,500. (1) 756 dwellings. (2) Croxteth. (3) Unit Construction Co., Ltd., Speke, Liverpool. (4) £1,026,264.

PORTSMOUTH CORPORATION. (1) 106 houses. (2) Leigh Park. (3) Howe and Bishop, Ltd., Crown Buildings, Clarendon Street, Portsmouth. (4) £145,965. (1) 48 flats and maisonettes. (2) Havant Street. (3) John Hunt, Ltd., Cleveland Road, Gosport. (4) £76,950. (1) 66 houses. (2) Leigh Park. (3) Aurio (Builders), Ltd., Cosham, Portsmouth. (4) £92,070.

CHATHAM B.C. (1) 137 houses. (2) Weeds Wood. (3) Peak Construction Co., Ltd., Strood, Kent. (4) £181,091. (1) 155 houses. (3) E. W. Ballard, Ltd., Rainham, Kent. (4) £205,530.

SWINDON B.C. (1) 68 dwellings. (2) Penhill. (3) W. Croft and Co., 176a, Manchester Road, Swindon. (4) £84,588.

LEEDS CORPORATION. (1) 88 flats. (2) Seacroft and Swinnow estates. (3) Direct Labour. (4) £100,000.

STOURPORT U.D.C. (1) 72 houses. (2) Walshes Estate. (3) Percy Cox (Builders), Ltd., Brierley Hill, Staffs. (4) £90,797.

BARROW-IN-FURNESS B.C. (1) 119 houses. (2) Tummerhill Estate. (3) Direct Labour. (4) £171,110.

HOLBORN. (1) Demolition and rebuilding for Falk, Stadelmann and Co., Ltd. (2) Onslow Street. (3) Pitchers, Ltd., 57, Ashburton Grove, N.7. (4) £95,000.

CHELMSFORD B.C. (1) 208 Cornish Unit dwellings. (2) Woodhall Estate. (3) Selleck Nicholls and Co., Ltd., St. Austell, Cornwall. (4) £294,543.

CHELMSFORD R.D.C. (1) 83 dwellings. (2) Gt. Baddow. (3) A. J. Arnold, Ltd., Market Road, Chelmsford. (4) £107,416.

MIDDLESBROUGH B.C. (1) 78 houses. (2) Park End. (3) Premier Dwellings (Cleveland), Ltd., Albert Road, Middlesbrough. (4) £105,235.

OXHEY, HERTS. (1) Church. (2) Gosforth Lane. (3) J. Carmichael, Ltd., 331, Trinity Road, London, S.W.18. (4) £25,000.

BELPER R.D.C. (1) 30 houses. (2) Woodlands Estate, Allestree. (3) J. H. Fryer, Ltd., Great Northern Road, Derby. (4) £36,589.

HAYDOCK U.D.C. (1) 36 houses. (2) Church Road. (3) J. W. Liptrot and Co., Ltd., Brook Lane, Pemberton, near Wigan.

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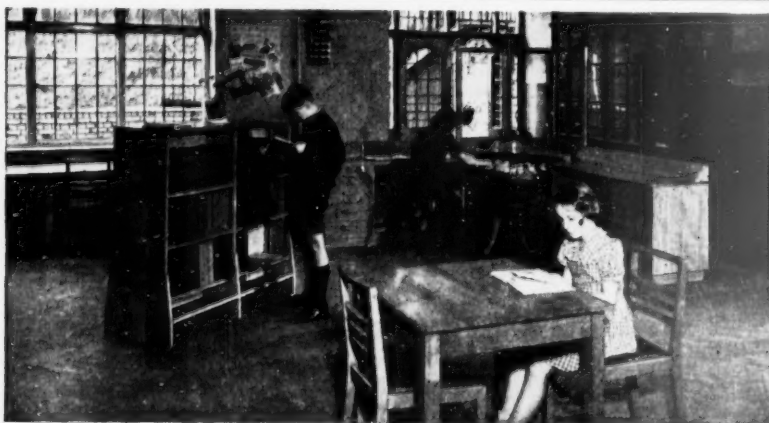
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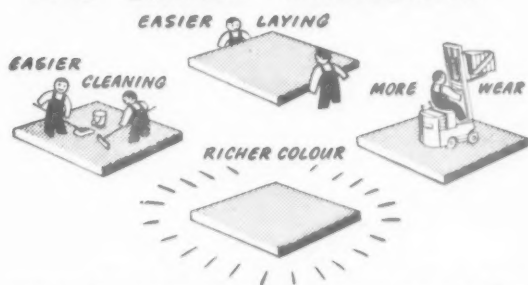
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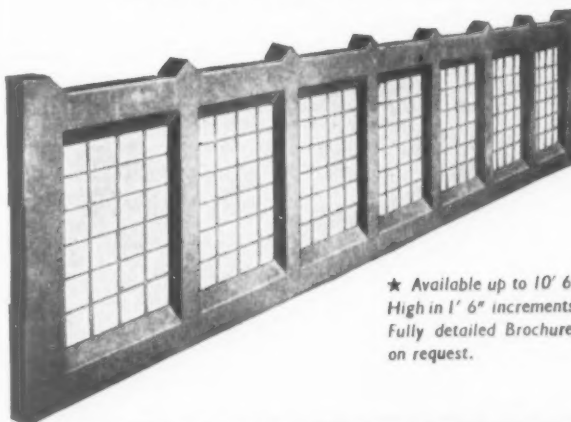
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PRESS NOTICE

For the issue of "The Architect and Building News" dated August 6th, classified advertisements must reach us by 1ST POST, FRIDAY, JULY 31st.

APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-54 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

BOROUGH OF OLDBURY.

APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

APPLICATIONS are invited for the undermentioned appointments in the Architect's Section of the Borough Surveyor's Department:—

(a) ASSISTANT ARCHITECT, Grade A.P.T. V(a)—(Housing).

(b) ASSISTANT ARCHITECT, Grade A.P.T. Via—(Education).

Applicants for the above appointments should be qualified members of the R.I.B.A. and preferably have previous experience with a local authority. Candidates for (a) should be experienced in the layout of contemporary housing schemes, the design and construction of municipal houses, flats and shopping centres and capable of administering building contracts.

For appointment (b) candidates should be qualified to take charge of the maintenance of education and public buildings, including the preparation of estimates, working drawings and specifications and administration of building contracts.

The appointments will be subject (a) to the conditions of the National Joint Council for Local Authorities Administrative, Professional, Technical and Clerical Service, (b) to the Local Government Superannuation Act, 1937, and (c) to the successful candidate passing a medical examination.

Applications giving particulars of age, experience, etc., together with the names of two referees, should be addressed to the undersigned not later than Saturday, 8th August, 1953.

Housing accommodation will be made available to married applicants if required.

KENNETH PEARCE,
Town Clerk.

Municipal Buildings,
Oldbury. [7234]

BOROUGH OF BRENTFORD AND CHISWICK.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for this appointment in the Borough Engineer and Surveyor's Department at a salary according to Grade VI of the A.P.T. Division of the National Scheme (£670-£735 p.a. plus London weighting) commencing 1st year. Forms (containing further particulars and conditions) obtainable from the undersigned, by whom applications must be received not later than the 7th August, 1953.

W. F. J. CHURCH,
Town Clerk.

Town Hall,
Chiswick, W.4.
16th July, 1953. [7232]

BOROUGH OF WATFORD.

APPOINTMENT OF ASSISTANT ARCHITECTS.

(a) GRADE A.P.T. VI.
(b) GRADE A.P.T. II-IV.

APPLICATIONS are invited for ASSISTANT ARCHITECTS within the above Grades, according to qualifications and experience. Applicants for (a) should be Registered Architects. Forms on application, returnable by 10th August, 1953.

Consideration will be given to the provision of housing accommodation if required.

F. C. SAGE, A.M.I.C.E., M.I.Mun.E.,
Borough Engineer, Surveyor and Architect.
Town Hall, Watford. [7239]

ANNOUNCEMENTS • CONTRACTS • TENDERS

Close for press 1st post Monday for following Thursday Issue

APPOINTMENTS—contd.

THE SPILSBY RURAL DISTRICT COUNCIL invite applications from associates of the R.I.B.A. for the post of SENIOR ARCHITECTURAL ASSISTANT. Salary A.P.T. V. Apply to the undersigned for further particulars and application form, which must be completed and returned not later than first post on Friday, 14th August, 1953.

T. H. E. COTTELL,
Clerk of the Council.

Council Offices,
Boston Road,
Spilsby, Lincs. [7241]

COUNTY BOROUGH OF ROCHDALE.

BOROUGH SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for a qualified ARCHITECTURAL ASSISTANT, Grade A.P.T. V (£595-£645 per annum). If applicant partially qualified, an appropriate lower grade will be paid until qualification obtained.

Experience in the preparation of Bills of Quantities will be an advantage.

The appointment will be subject to the provision of the Local Government Superannuation Acts, and to the selected candidate passing a Medical Examination. Canvassing is prohibited and candidates must disclose whether to their knowledge they are related to any member or Senior Officer of the Council.

Application, stating age, qualifications and full particulars of experience, together with the names and addresses of two persons to whom reference may be made, must be delivered to the Borough Surveyor, Town Hall, Rochdale, not later than Monday, the 31st August, 1953. Envelopes endorsed "Architectural Assistant."

K. B. MOORE,
Town Clerk. [7243]

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E. G. BARNARD, M.A.,
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Deposits are returnable on receipt of a bona fide tender, or the return of all documents not later than 17th September, 1953.

Tenders are to be delivered to the Town Clerk by 10 o'clock, 22nd September, 1953.

The Council do not bind themselves to accept the lowest tender.

H. DIXON CLARK,
Town Clerk. [7244]

24th July, 1953.

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PRESS DAY Monday. Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

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ARCHITECTURAL APPOINTMENTS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-54 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

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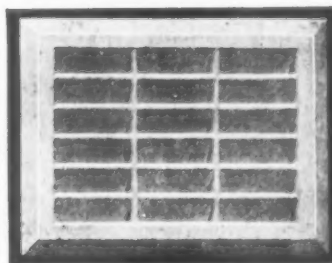
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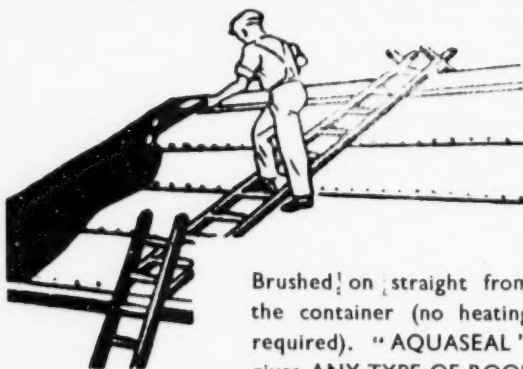
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INDEX TO ADVERTISERS

Official Notices, Tenders, Auction, Legal and Miscellaneous Appointments on pages 34 & 35

Adams Hydraulics	32	Dunlop & Ranken, Ltd.	29	Kinnear Shutters	29	Solignum, Ltd.	6
Adamez, Ltd.	32	Inside Front Cover		Libraco, Ltd.	32	Steven, A. & P., Ltd.	29
Anderson, D., & Sons, Ltd.	30	Dussek Bros., & Co., Ltd.	28	Luxfer, Ltd.	13	Thom, John, Ltd.	30
Bath & Portland Stone Firms, Ltd.	36	Ebor Concretes, Ltd.	33	Maple & Co., Ltd.	12	Turners Asbestos Cement Co., Ltd.	19
Baume & Co., Ltd.	28	Ellis School, The	35	Margolis, M.	30	Twistell Reinforcement, Ltd.	
Berry Wiggins & Co., Ltd.	36	Engert & Rolfe, Ltd.	29, 30	Medway Buildings and Supplies, Ltd.	17	Inside Back Cover	
Bowaters Building Board, Ltd.	24	Evans Lifts, Ltd.	35	Midland Woodworking Co., Ltd., The	5	United Steel Structural Co., Ltd.	23
Bradshaw Bros. (Con.), Ltd.	15	Floor Renovations, Ltd.	29	Mullen & Lumsden, Ltd.	29	Universal Asbestos Manufacturing Co., Ltd., The	25
Briggs, Wm., & Sons, Ltd.	32	Gardner, J., & Co., Ltd.	29	Murex Welding Processes, Ltd.	10	Veitchi Company (The)	30
British Constructional Steelwork Association	18	General Electric Co., Ltd., The	12	Northarc Organisation, The	32	Wild, Thos. C. (Machinery), Ltd.	10
British Ebonite Co., Ltd., The	30	Gibson, Arthur L., & Co., Ltd.	29	Permafence, Ltd.	14	Wilds Engineering & Contracting Co.	29
Cafferata & Co., Ltd.	31	Gliksten, J., & Son, Ltd.	1	Pilkington Bros., Ltd.	20, 21	Williams, John, & Sons (Cardiff), Ltd.	4
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